

BERGSON'S IDEA OF CREATION

A DISSERTATION

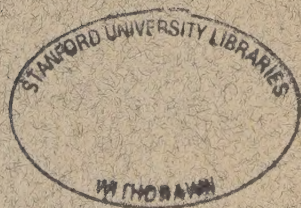
PRESENTED TO THE FACULTY OF PRINCETON UNIVERSITY

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

BY

NEWTON P. STALLKNECHT



*Reprinted from the Author's
"Studies in the Philosophy of Creation"*

781
256

RECOMMENDED BY THE DEPARTMENT
OF PHILOSOPHY TO THE FACULTY FOR ACCEPTANCE

MAY, 1930

BRIEF STATEMENT OF THESIS TO BE DEFENDED

THE philosophy of Henri Bergson has been for over thirty years widely known, discussed, and criticized. Adverse criticism has been unusually severe, and on the other hand appreciative enthusiasm has reached at times an amazing intensity. The reasons for such a reception are not hard to discover. Consider the fact that the two most prominent Americans who expressed their views at length concerning Bergson's philosophy were William James and George Santayana. James was enthusiastic in his commendation of Bergson's theory.¹ Mr. Santayana was even more serenely scornful than usual and even more aloof.² In his eyes Bergson seemed to have discarded philosophy and to have substituted for its analytic method a literary sleight of hand with which he read unwarranted meaning into subjective experiences fit only for poetic treatment. Santayana was thus chiefly displeased with Bergson's method. James' sympathy was aroused on the contrary by the results which Bergson obtained. Here was a universe plastic and indeterminate in which human initiative was not engulfed in an order of things "fixed of old and founded sure" like the heavens and earth of Housman's despair. Here was a world to which man could contribute his effort, in short, an "open universe." To a thinker of James' spiritual interests, Bergson's philosophy seemed a fascinating attempt to assert significance of human life. But to a man of Santayana's rationalist cast of thought, Bergson's treatment of intellectual knowledge and his tendency to subordinate analysis to an intuitive grasp of reality's primary character could seem nothing but philosophical suicide.

Now, in these two reactions to Bergson's thought we find emphasized the two aspects of his philosophy which must seem most prominent to a critic who desires to grasp its full implications. Bergson's defense of human freedom is undoubtedly a worthy endeavor, successful accomplishment of which would be of greatest importance for philosophy. On the other hand, his treatment of analysis, as it stands in his works, is undoubtedly dangerous. In fact, as critics have shown, it may reasonably be said to undermine his whole philosophy.

¹ *A Pluralistic Universe*, New York, 1909, pp. 223-75.

² *Winds of Doctrine*, New York, 1913, pp. 58-109.

Such a situation naturally tempts the critic to essay restatement and reconciliation. This we are bold enough to attempt and our thesis is, in brief, that such a restatement is possible. We shall endeavor to draw from Bergson's philosophy an interpretation of human freedom which would satisfy a thinker of James' type. We shall further endeavor to state Bergson's doctrine of creative evolution in such a form that the most "tough-minded" rationalist may find in it nothing that outrages man's admirable faith in the importance of analysis and of search for a definite structure resident in the heart of things.

We must, however, be modest in our attempt and refrain from asserting the necessity of such a world-view. We can only hope to present a possible interpretation of human experience. That it is the only interpretation tenable we shall find impossible to assert.

Fortunately such an attempt really involves a minimum of original speculation. The entire texture of such a philosophy may be found in Bergson's writings and we shall have only to distinguish the valuable from the valueless by indicating a certain fundamental ambiguity in Bergson's thought. This distinction will comprise the central theme of our criticism of Bergson. Once this is manifest, we shall have little difficulty in showing how one side of Bergson's hypothesis may be developed to suit our purposes.

INTRODUCTORY OUTLINE OF ARGUMENT

It is, then, the purpose of this dissertation to discuss the central thought of Bergson's philosophy,³ his idea of creation, and to show its importance for a philosophy which seeks to vindicate human freedom, and to interpret human striving and human enjoyment as something of ultimate value and significance in the scheme of things. In so doing, we shall distinguish two important interpretations of creation present in Bergson's writings and evaluate them. We shall find that his thought contains more than his rationalist critics have realized, although we

³ Throughout Part Two occur many references to Bergson's works. Wherever possible I have referred to the authorized English translations:

Time and Free Will. An essay on the immediate data of consciousness. Authorized translation by F. L. Pogson, London, New York, 1910.

Matter and Memory. Authorized translation by N. M. Paul and W. J. Palmer, London, New York, 1911.

An Introduction to Metaphysics. Authorized translation by T. E. Hulme, New York and London, 1912.

Creative Evolution. Authorized translation by Arthur Mitchell, New York, 1911.

shall admit that at times he oversteps himself, when describing creation, and that he then plays directly into his opponents' hands.

As we have said, Bergson's philosophy really contains two accounts of creation. The first makes of it an absolutely simple and undifferentiated surge towards novelty which is indefinable and quite beyond the powers of thought to analyze into simple terms. Conceptual analysis can only distort our apprehension of this process. It was this aspect of Bergson's philosophy that so scandalized Santayana. The second interpretation offers a more intelligible account, according to which concepts need not be described as instruments of distortion, and for which creation is simple and unique only as regards the form given its production, and not at all undifferentiated as regards the act of creation or as regards the material employed in the act.

This distinction is of first importance since the philosophy of Bergson is essentially a philosophy of creation. Change, which is for Bergson the most prominent aspect of reality, is interpreted as analogous to psychic production or creative, esthetic composition. There is little that is new here insofar as interpretation of reality as comparable to esthetic creation is concerned. More distinctive is Bergson's doctrine that the world is always in the making. For Bergson, the flow of time is a constant outpouring of creation, which is dominated, at least in our domain, by a tendency toward production of higher or more autonomous living beings. The tradition of Schelling, Ravaisson, and Boutroux is obviously Bergson's.

Now, we must test the arguments which lead Bergson to assert that creative process is the *on 'e on* and the power everywhere manifest in reality. Here we shall be compelled to discount Bergson's frequently expressed assurance. We shall have to consider his interpretation of cosmic change not as a truth necessarily forced upon us by philosophical investigation but as a plausible hypothesis whose spiritual significance invites us to consider it seriously.

Consideration of creative process itself comprises the central theme of our work. Here we shall have to distinguish the two interpretations of creation present in Bergson's writings. One is the irrational interpretation and the other the esthetic. According to the former interpretation, creation is a simple undifferentiated flux. This flux is without elements that possess either real or separate existence. What elements we attribute to the process are really only appearance, being manifold views of the indivisible flux, which is creation itself. The process is itself indefinable and cannot be included in rational discourse. This

side of Bergson's thought might be called a philosophy of the inexpressible, since it leads us to a reality which cannot be defined or even discussed with profit. We shall see besides that this doctrine fails to aid one who seeks to assert spiritual significance of human life.

On the other hand, the esthetic interpretation avoids these difficulties. Creation is here accounted for in a manner amenable to reasoning and intelligible presentation. On this view, creation is a fusion of abstract elements which are more than "views taken of an indivisible process." The elements are materials which go into the making of the process itself. Esthetic creation, unlike irrational, can be described at length and there are several passages in Bergson's works where this is done. It is thus unnecessary to discredit intellectual knowledge in order to defend a philosophy of creation. From this position we maintain that a reasonable account of human freedom may be elaborated.

The argument involved in this part of our work may be summarily sketched as follows:

1. Bergson's doctrine of creative process offers assistance toward framing a reasonable philosophy; although
2. the doctrine cannot be applied to reality as the necessary conclusion of any argument that Bergson has advanced, and although
3. the doctrine is ambiguous in Bergson's presentation, resulting as it does from the confusion of two interpretations of creative process, one of which, the irrational, has been with good reason severely criticized.
4. The other interpretation, the esthetic, offers a more favorable development which may be held to supply us with an account of an "open universe" of the sort mentioned above.

Through this argument we shall support our original contention that the spiritual importance of Bergson's philosophy may be preserved even after restatement to avoid the legitimate objections of his rationalist critics.

PART TWO

CHAPTER I

THE FOUNDATIONS OF BERGSON'S PHILOSOPHY

WE MAY introduce Bergson's thought most conveniently by describing one of his fundamental distinctions. This is a distinction drawn between two types of system.¹ Bergson has called one the inert and the other the vital or the creative.

An inert series is a determined one, a series whose every moment is absolutely dominated by the rationale of its structure. An accurate plotting of an equation's curve is an inert series or system. A creative series or, better, a creative process is quite different. Creative process is not chaotic and yet it is not dominated from the start by a rationale. It is the order of esthetic process, which is not generated through the presence of any dominating principle, but which may be described as the solution of the problem of expression or invention. It is the Platonic "poetry" which is a "general name signifying every cause whereby anything proceeds from that which is not into that which is, so that the exercise of every inventive art is poetry and all such artists poets."² (This passage is illuminating but we shall not interpret poetry further in Platonic fashion.) For Bergson, this process is telic but contingent. It is becoming that grows as it becomes without reference to any being of which it is a *necessary* product or manifestation.

Creative process forms its own structure as it endures. The completion of its work is separated from its beginning not by mere interval of time, which might be compared to the measure of motion along a plotted curve, but by a pulse of duration or invention which separates past from future by more than a mere chronological distance.³ Time of this sort leaves its mark upon becoming which is profoundly and essentially altered in duration. Such change is not the manifestation of an existing principle or absolute such as the realized and concrete plan of the finalist's God, but really involves the production of a new essence.

Real time or duration is just that activity through which novelty enters the world. Chronological time or time abstracted from concrete

¹ *Creative Evolution*, p. 224.

² *Symposium*, 205.

³ *Creative Evolution*, pp. 15-23.

becoming for the sake of measurement is not creative in function, if indeed it has any function of its own. It is nothing active, it is the standard of comparison of periods of change and serves also to map events in relation to one another as an historian maps the chronology of his subject for convenient reference. Such time is no index of growth or development; it need not involve essential change.

Inert system reduces the future to the present by enlarging the scope of a given situation whose moments are separated only by chronological time. From this point of view, foresight is only completed sight. Foresight is only limited when essential alteration or creation is possible. "The essence of mechanical explanation" writes Bergson, "is to regard the future and the past as calculable effects of the present, and thus to claim that all is given."⁴ Finalism is not so bold; it does not involve the doctrine that past and future are related to the present in terms of mathematical formulae. But it none the less holds to inert system. As we have said, the finalist applies to his universe a characteristic of being. He considers it, so to say, all of a piece. The realization of values which are worth embodying is the world-system as seen by its author. Purpose is thus not its fundamental concept. This concept is that of realized value, which imposes as absolute a determinism upon life as do the principles of mechanism. As William James would have put it, for the finalist, "there is no news in heaven."

Bergson's doctrine of creative process derives, I suspect, from the contemplation of esthetic production, which is not without plan of a sort and yet is without final structure or even definite essence until the esthetic act completes its work. In composition, thinks Bergson, we create our own path as we progress through a thousand contingencies. There exist, to be sure, generative ideas, our inkling of the meaning we wish to express and our choice of medium to be employed.⁵ But the embodiment of that meaning we cannot hope completely to foretell, for to do so would be to create the whole work beforehand, and so to accomplish our purpose while trying to foreshadow our accomplishment.⁶

Now, we have just seen that when we predict by the ingenious application of a formula, when we advance along chronological time, we are preoccupied with what does not change. We are interested in a present that is pervasive of past and future. Now, it is the same with the metrical structure of a poem, which like the pattern of celestial movements,

⁴ *Creative Evolution*, p. 37.

⁵ *ibid.*, p. 320.

⁶ *ibid.*, p. 6.

pervades a wide realm of change and brings it before us in a scheme that is immune from alteration. Thus we find in the esthetic product a union of both systems, inert and creative. Bergson himself might at times deny this, but at any rate, both systems may be exemplified by reference to esthetic products, such as poetic composition. Here, as we shall see, inert system receives creative embodiment in concrete production.

It is not surprising that creative process, derived as it seems to be from esthetic activity, is bound up closely with intuition. It is to this organ of thought that Bergson turns to support the existence and the actual objectivity of creative process. There are four kinds of intuition worthy of mention:

1. That involved in creation or discovery. Bergson does not define this, but we shall describe it for him as the psychic production of the essentially new.⁷

2. That involved in following or appreciating a creation or a discovery. This may be described as recognition of the new as new, by virtue of the fact that in recognition we follow the path first apprehended by the creator's productive intuition.⁸

3. That which apprehends things with esthetic directness, freeing itself as much as possible from recognizing its subject matter according to customary categories useful in commonplace action or discourse.⁹

4. That involved in the immediate apprehension of relations, the *intueor* of Descartes. These are the intuitions of mathematical calculation, such as steps in the linking of a proof. This form of intuition Bergson does not recognize because it does not reveal a durational or essentially changing character in its subject matter.¹⁰ It is thus for him a function of the intellect and of discursive thinking.

The first two classes of intuition are in immediate contact with dynamic process. The third may be employed to suggest its presence in nature. At times Bergson describes this type of intuition as evidence absolute of such a change in nature, but we shall have to discount this interpretation.

Discussion of intuition of the first type, which is creation itself, will occupy us throughout much of our work. The second is identical with

⁷ See for example *ibid.*, p. 239.

⁸ See for example *ibid.*, p. 209.

⁹ See for example *ibid.*, pp. 1 ff.

¹⁰ See Bergson's letter to Höfding, quoted in Höfding's *La Philosophie de Bergson*, Paris, 1916, p. 161.

the first save that it is assisted and guided by production of the first type. Something must be said, however, about the third type before we undertake the major task of discussing creation itself.

This intuition can only be understood by contrast with intelligence. Intuition enjoys while intelligence systematizes and describes, frequently with reference to possible action. Intelligence is interested, then, in regularity and in recognizable instances of regularity. Thus it is interested in inert system. But intelligence is uninterested in the setting or the concrete environment in which inert system appears.¹¹ William James writes of Bergson's philosophy:

"The essence of life is its continuously changing character; but our concepts are all discontinuous and fixed, and the only mode of making them coincide with life is by arbitrarily supposing positions of arrest therein. . . . When we conceptualize, we cut and fix, and exclude everything but what we have fixed."¹²

Thus intelligence is really at home only in the "spatial" realm of mathematics, where regularity seems to be everything and is untrammelled by an irregular concrete world. In other realms it cuts and fixes to procure some regular pattern. Hence intelligence ignores things in themselves. We need not say that it alters its subject matter but it may distort it by finding therein only manifestations of regularity. In doing this it ignores what may be unique and, so to say, irregular—irregular, that is, when considered in relation to its past environment.

¹¹ A. N. Whitehead, *Process and Reality*, pp. 427-8, interprets Bergson's intuition as follows: it is a way of knowing that lies between "physical feelings" and reasoning. It is a function in which the mind rises above mere reception of stimulus or image but still does not undertake out-and-out intellectual activity. Propositions are apprehended in such thinking, but the subject does not bring them to consciousness in their full logical structure. Even so, these propositions give a certain definiteness to apprehension which physical feeling lacks. This new element is an important feature, we may add, of the esthetic experience: the proposition heightens the tension of the apprehension giving the object a concentration which it had otherwise lacked. But these propositions are drenched in the "physical" feelings to which they refer—intellectual abstraction has not taken place. This account is valid enough in as far as it goes—but it refers only to what we have called the second and third types of intuition, to the contemplative rather than creative phase of intuition. It does, however, reveal that intuition of this contemplative type grasps what intellect may miss—namely, the concrete environment and even the real texture of the object apprehended. This is because intuition of the type herein described does not expand the logical complications of the propositions for their own sake—on the contrary its attention is fixed on the concrete matrix in which it "feels" the presence of the propositions. Whitehead is right, I think, in saying that this differs from reason only in degree—that is, I interpret, degree of attention paid to the propositions for their own sake.

¹² *Pluralistic Universe*, p. 253; also *Creative Evolution*, pp. 210-16.

Since intelligence seeks inert system it seeks to describe the concrete as regular with its whole environment. Thus analysis (intellectual thought) is the operation which reduces the object to elements already known, that is, to elements common both to it and to other objects. To analyze therefore is to express a thing as a function of something other than itself.¹³ (At the present stage of our argument we can go no further toward describing the place of intelligence and analysis in Bergson's system. His own interpretation is, like his treatment of creation itself, ambiguous and can be treated only with special reference to his variant positions.)

Now, intuition is said to embrace things themselves. The third type of intuition does this less openly than the first two. The third type does not reveal novel structure or organization, but merely notices the presence of continual change and heterogeneity in experience. It is from this flux that intellect abstracts. The fluid, changing aspect of this flux is ignored in ordinary commonplace experience which sees its objects as instruments for action or as desirable ends of action thus recognizing in them their relations to other things, the categories or classes into which they may be placed. The third type of intuition recognizes what such practical apprehension misses. It brings to mind that the world is continual change and that what we call objects and systems of objects are really not so stable as we often suppose. Usually "it is expedient to ignore this uninterrupted change and to notice it only when it becomes sufficient to impress a new attitude on the body, a new direction on the attention."¹⁴

A subtler type of such intuition is that which recognizes not only omnipresent change but grasps an esthetic quality in this change. An example will illustrate. Bergson refers to our hearing a clock strike, let us say, four times.¹⁵ He tells us that we may become aware all at once of the clock's having struck four times without having counted the strokes separately. This happens as follows: "The first four strokes had struck my ear and even affected my consciousness, but the sensations produced by each one of them, instead of being set side by side, had melted into one another in such a way as to give the whole a peculiar quality, to make a kind of musical phrase out of it. In order, then, to estimate retrospectively the number of strokes sounded, I tried to reconstruct the phrase in thought: my imagination made one stroke, then two,

¹³ *An Introduction to Metaphysics*, p. 7.

¹⁴ *Creative Evolution*, p. 2.

¹⁵ From Bergson's *Time and Free Will*, pp. 127 ff. By permission of The Macmillan Company, publishers.

then three, and as long as it did not reach the exact number four, my feeling when consulted, answered that the total effect was qualitatively different."

Bergson has devoted a great part of his first work, *Time and Free Will*, to an examination of the quantitative aspect of perception. His thesis is that the quantitative grading of different sensations as more or less intense degrees of the same experience is a valuable distortion through which we arrange heterogeneous data according to a homogeneous scale of intensity. This scale is adapted to coordinate with the amount of stimulus needed to arouse the various heterogeneous qualities in perception. In themselves these qualities are unique and heterogeneous. This theory allows a qualitative wealth of variation to much experience that seems at first quite without it, and Bergson has developed this thesis very fully with copious examples. We cannot in this treatise, however, expand on the doctrine which is not an essential feature of the theory of creation.

All this goes to show that there is much in experience which we ignore when we consider things intellectually. This, however, does not prove what Bergson would like to show, namely, that natural process is creative and not absolutely regular in occurrence. It does indicate that experience offers some evidence to that effect. But after all why trust experience of one sort as opposed to that of another? The intellect is as much a human function as any form of immediate intuition and as such demands equal consideration. The first step in intellectual knowledge is abstraction from the immediate; but this does not indicate that intelligence will not in the end afford principles in terms of which to explain the apparent irregularities of immediate experience.

To be sure, we always find an aura of apparently semi-regular events about the embodiment of principle in nature. Nothing actual seems so very exact or law-abiding in the final scrutiny made of the tissue of events that surround it. This Boutroux emphasized. Still it is only through faith in this questioned regularity that we make any advance in knowledge. And, at an early or "human" stage of enquiry, is it not presumptuous to deny the existence of a definite complex order of concrete events simply because there is much that seems contingent? We have only to remember that what is now recognized as orderly seemed once nothing but an intricate confusion of brute fact. At times, Bergson realizes this, but at others he takes to describing intuition as sympathizing with objects, penetrating to their very hearts with an "intellectual sympathy," all to indicate that here in the qualitative and

heterogeneous is the *Ding an sich* at last.¹⁶ He is wiser when he retracts his assurance and teaches that we must interpret the world as similar to our fluid and various stream of thought, that is, as rich in unique and changing character, if we wish to avoid the difficulties of an intellectualist philosophy. These difficulties arise from the fact that when dealing solely with concepts we can never tell which one to take as starting point or as first principle.¹⁷ Now, this is perhaps true enough but not sufficient, for we shall see presently that similar difficulties arise once we try to found a philosophy on unique flux. The problem of relating the flux to intellectual order presents as many difficulties as does any philosophical situation.

So further evidence is required; and this Bergson seems to feel. For he seeks studiously in the realm of living things, and from a study of their manner of development he tries to derive evidence for the presence of creative process in nature. In this investigation he does not rely upon the third type of intuition but tries to show that the development and endurance of life* is animated by a drive which works after the manner of the first intuition, being analogous to psychic creation.

Bergson would interpret life as creative process, both the life of the individual and the development of biological forms. There is in one respect a marked resemblance between life and creation. A living being, so long as it succeeds in preserving life, must conform throughout its development to some pattern of function that will maintain life. Its growth is not then a matter of manufacture, whose products will function only at the end of a period of construction. Arising from a living germ developing as a living embryo and a living infant, the organism reminds one not of a piece of machinery in preparation but rather of an esthetic production which preserves certain characteristics, analogous to the metrical and grammatical structure of a poem, throughout the whole period of its endurance. Such a comparison seems legitimate when we recall Bergson's occasional use of poetry and painting as examples of creative production. The point of such analogy lies in this. In esthetic composition, concrete embodiment or expression must preserve a certain form throughout. This form is maintained through unforeseen circumstances and problems of expression, which every advance in composition sets before the artist. This is similar to vital function, which differs along with it from mechanical manufacture, in that the latter attains its form only at the end of its development.

¹⁶ *Introduction to Metaphysics*, p. 7.

¹⁷ *ibid.*, p. 43.

Further manufacture removes its product from contingent circumstance. Life both in the individual and the race is not so removed and maintains its form through adaptation to such circumstance. Thus vital development seems not comparable to production according to a plan but rather to esthetic production which proceeds from no more than a chosen topic or subject and a medium of expression, producing answers to its problems as they arise.¹⁸

Bergson has said,¹⁹ "To manufacture is to work from the periphery to the center, or, as the philosopher says, from the many to the one. Organization on the contrary works from the center to the periphery." That is to say, it preserves its unity or vital structure throughout development.²⁰

Again the relation of any single function to organic structure may be interpreted on esthetic grounds. Function itself, Bergson thinks, is a simple act made possible only through a vast complexity of coordinate structure.²¹ Coordination is the *sine qua non* of function. Various types of similar function are supported by organic structures of different character.²² Indeed in some cases, if an organ be removed from a living organism, it will be replaced by tissue of a constitution dissimilar to that of the organ removed. Thus it might seem that development of living forms is carried on in terms of function, structure being, so to speak, the medium in which function is embodied. Function represents the type of coordination embodied in the organic structure.²³ This type of coordination may be repeated in various contexts in each case through a special organization of structure, as an idea may receive various embodiments in different connections.

These two considerations militate against mechanical interpretation of the processes of vital development.²⁴ These interpretations would employ the concept of manufacture through chance aggregation. Such considerations are also opposed to the teleology which interprets life as a movement toward a fixed goal, the whole plan preexisting and dominating life and development, thus ignoring the fact that life is "productive of effects in which it expands and transcends its own being."²⁵ Such

¹⁸ *Creative Evolution*, p. 93.

¹⁹ *ibid.*, p. 92.

²⁰ See also *ibid.*, p. 65.

²¹ *ibid.*, p. 88.

²² *ibid.*, pp. 74-5, 96.

²³ *ibid.*, pp. 95-6.

²⁴ *ibid.*, p. 38.

²⁵ *ibid.*, p. 52.

views do not emphasize, as does the creative, the necessity, to which life is put, of preserving a vital form throughout development, nor does it require that development proceed in terms of function.²⁶

Thus Bergson draws evidences of creative process from vital functions. He also tries perforce to apply this notion of creation to the order of organic evolution itself. Here he faces rival hypotheses of considerable reputation. It is argued that the development of new forms of life receives its impetus from the contingent appearance in the germplasm of factors conditioning changes in the organism that develops from them. The more fortunate of these contingencies, that is, those that result in abler animals, are preserved while the less fortunate are removed slowly from the field of vital competition. Now, since the germplasm transmits these "potencies" with a degree of constancy to the somatoplasm derived from it, transition occurs in this way from one form of living being to another through the gradual and contingent alteration of the germplasm. This reduces organic evolution to a matter of contingent mechanism.

The doctrine is also advanced in a slightly different form, in which various characters are linked together in the germplasm, their influence upon the somatoplasm therefore being simultaneous. Thus if one unit possesses survival value, the entire connection prospers. In this way, explanation is offered of the origin of more elaborate and complex forms of organic structure. The simultaneous origin of their parts is explained even when the structure does not possess survival value until to some extent developed, for the undeveloped form is saved by its connection in the germplasm with a unit possessing survival value.

Bergson does not deny that such views are based upon a sound knowledge of biology. He quarrels only with the necessity of our thinking the origin of new characters as sheerly contingent. He believes that these views attempt to explain too much. Bergson does not feel that these characters are purely the result of mechanical causes such as the effect of the environment. Natural selection or even the direct effect of environment upon organs cannot build new forms of life. They influence only the sinuosities of the path: they do not produce its direction. How are we by appealing to chance aggregations of characters, even supposing them to enter the arena in couples or trios, to explain the appearance along diverse strands of evolution, among forms of life descended from a very remote common ancestor, of similar types of organs and func-

²⁶ *ibid.*, pp. 94-5.

tions?²⁷ The wide distribution of sexual reproduction among both plants and animals is an example of this similarity. The presence of vision is another. It is as if the same artist were expressing himself in similar ways, that is following the same creative impulse, on remote sections of his vast canvas.

But such similarities of structure may, even so, be the result of similar conditions of environment, where circumstances favor the persistence of certain types at the expense of others. The contingent origin of these types must be furthered once they arise, and so in time, granted that our contingencies do not occur without *some* common element of similarity along the diverse strands of evolution, similar functions and structures will appear. Realizing this as possible, Bergson tries to be more precise. He takes, as example, the development of the eye, and he claims to find similarities of elaborate structure along remote paths of life's development.²⁸

Now, granted that these are genuine similarities, what follows? Can we argue with Bergson that these resemblances are the result of the same esthetic creation following the same initial impulse or working in the same style? We can only assert this if we can show that a creator would be facing the same situation in the two cases, thus resolving fairly similar difficulties after a similar fashion. This difficulty Bergson seems to realize, for he adds in further support of the argument this statement, which occurs at the very end of his presentation and is really quite unsupported. ". . . No matter how distant two animal species may be from each other, if the progress toward vision has gone equally far in both, there is the same visual organ in each case, for the form of the organ can only express the degree in which the exercise of the function has been obtained."²⁹

But this relation of perfection of function to similarity of structure would be very difficult to maintain. Bergson has made much of the fact that a certain mollusc, the Pecten, has an eye with inverted retina, hence of a type similar to the vertebrate's.³⁰ But, even so, how can Bergson argue, without begging the question, that this mollusc has gone as far toward perfect vision as the vertebrate? Does life face the same problem in both? The assertion seems doubtful and is unsupported. If it is false,

²⁷ *Creative Evolution*, p. 59.

²⁸ *ibid.*, p. 62.

²⁹ *ibid.*, p. 96.

³⁰ *ibid.*, p. 62.

any similarity to be discovered between the two eyes is beside the point and reveals no creative unity in organic evolution.

So Bergson's attempt at proof seems invalid. His endeavor to include the detail of biological knowledge in his theory has failed. But we must remember that Bergson is really not given heart and soul to establishing the necessity of his interpretation of evolution. At the present stage of knowledge that would be indeed a presumptuous undertaking. He says that he has no intention of presenting a final and mathematical refutation of mechanism in biology. Thus we need not look for certainty in his defense of creative evolution, although the tone employed in the later stages of the biological argument seems more assured than his logic justifies. And for all that Bergson has said in his argument, his logic, if held strictly to the letter, does not escape the criticism made of it by Mr. Santayana who asks why Bergson should not postulate in nature a movement toward puddles of various shapes, since similar instances of these puddles are observable throughout a considerable extent of nature.⁸¹ But none the less, Bergson's review of his material gives us good reason to suspect that life is not formed after the fashion of water puddles. Puddles do not, so it seems, evolve new shapes through the ages, nor will a puddle struggle to maintain a certain structure of organization in the face of circumstance. A puddle cannot be wounded, much less heal of itself if wounded. Puddles, in short, lack vital structure which invites us to speculate upon its power of self-preservation and development.

The above argument introduces creation as a metaphysical principle dominating a large realm of observation. Bergson tried to resolve the problems of philosophy in terms of this principle. Once this is undertaken, differences of interpretation arise. When confined to the realm of life and employed as a counter for mechanist arguments, the notion of creation could be rather loosely interpreted as a driving power which solved its problems after the fashion of an artist at work. This, however, proves insufficient when we face the even wider problems of philosophy. When studied at all closely, creative process reveals embodied within it many examples of articulate structure and even of inert order. Remove such structure and intelligibility vanishes. The poem without order, even inert order, must be contentless—it can have no scheme of meter or of rhyme, nor can it embody the structures of syntax. And apart from a regular, natural order of temperature and food supply without and a rhythm of vital function within, adapted to this natural order, life

⁸¹ *Winds of Doctrine*, p. 92.

would be nothing at all. The plasticity of creation must be reconciled with the omnipresence of regularity.

How then is creation related to the patterns of regular repetition without which it can be nothing but chaos? Bergson's answer to this question involves him in the conflict of which we have spoken. On the one hand he describes order as something opposed to creation. Creation is then an unintelligible and undifferentiated flux, which is somewhat thwarted by the presence of inert order, its mysterious opposite. This opposite has appeared upon the scene owing to a relaxation of creative process, which for some reason unmakes itself continually and then quarrels with the result. On the other hand, we have a somewhat more intelligible account of creation. For Bergson at times writes to the effect that creative process, far from being aloof from structure and differentiation, actually embodies such structure in its concrete products. The process which brings this about is described in an unusual way but is by no means unintelligible. In this process inert system might be present as one of the goals of embodiment just as a definite rhythm may hover before a poet's incomplete, tentative lines and discipline his creation.

Unfortunately, Bergson employs the more difficult account, the mystical one which we mentioned first in order, when he raises creative process to cosmic application. This he does by showing how the processes of nature, even those manifesting inert order, may be related to a creative drive whose energy moves the whole world.

Bergson has recognized a tendency in nature that moves against creation toward absolute determinism, and in one place he speaks of absolute necessity in nature as if there were an actual absolute necessity in some phases of the concrete world.³² This necessity is the reverse motion of creative process. It is manifest in the breakdown of vital compounds rather than in their synthesis. Bergson finds it in entropy, the inevitable loss of energy, which escapes as heat from chemical processes.³³ This downward movement surrenders to inert system.

Now, Bergson cannot mean that such determinism ever actually includes concrete histories, for the reason that he believes in the reciprocity or interpenetration of states of reality, as also in the fact that every point of extension is in relation to every other point and influenced by it.³⁴ Hence the indeterminate influence of contingent realms should dispe-

³² *Creative Evolution*, p. 248.

³³ *ibid.*, pp. 241 ff.

³⁴ *ibid.*, p. 188 and elsewhere.

absolute determinism in others. Determinism can be only approximate.³⁵ Even so this downward tendency is one against which creation must struggle. For the breakdown is a loss of vital energy and life can only continue through constant rebuttal of the surrender which it must constantly make.³⁶

This counterstroke of the *élan vital* assumes cosmic significance when Bergson ascribes to it the laws of inanimate nature, and speaks as if they too were the ripples cast off by the creative surge. In these ripples creatures must live their lives. We are thus surrounded by many events of inert nature. This dissolution of creative tension has an analogy in the breakdown of any creative activity. Consider a poem apart from its esthetic concentration, as for example a child might read it. Here is order and system enough buried in the grammatical structure, the spelling of the words, etc. But here no creative system is apparent.³⁷ Objectify this relaxation to include natural processes and we would have orderly inert systems proceeding from creative process, and supplying the world with its vast cycles of regular behavior.

Existence is such that we must always face either creative or inert order.³⁸ There is no alternative. Our idea of disorder, our idea of noth-

³⁵ *ibid.*, p. 218.

³⁶ *ibid.*, p. 246.

³⁷ *ibid.*, p. 240.

³⁸ *ibid.*, p. 220.

³⁷ Compare with this the following passage from Bergson's most recent work:

"... Une tendance est la poussée d'une multiplicité indistincte, laquelle n'est d'ailleurs indistincte, et n'est multiplicité, que si on la considère rétrospectivement, quand des vues diverses prises après coup sur son indivision passée la composent avec les éléments qui ont été en réalité créés par son développement." (*Les deux sources de la Morale et de la Religion*, pp. 317-18.) Or, as expressed in an example. "La vérité est que réflexe et volontaire matérialisent deux vues possibles sur une activité primordiale, indivisible, qui n'était ni l'un ni l'autre, mais qui devient rétroactivement, par eux, les deux à la fois." From the point of view of the esthetic theory, we might, with a little goodwill, make something reasonable out of these passages. Otherwise they must remain subject to Santayana's criticism that Bergson allows multiplicity to arise out of nothing, or at least out of sheer simplicity. As the passage stands, this seems to be the case. From the esthetic point of view we may interpret the last passage quoted as follows: Two related functions, say reflex action and will, may have a common origin which, when we look back upon it, reveals that it is in a sense the same function as both the later ones which first attracted our interest. The original function represents the constitutive universal which in the plasticity of creation becomes reembodyed into new forms, both containing the original principle. This principle is of course reworked in creative transmutation as, let us say, Coleridge reembodyed the English ballad in his *Ancient Mariner*. When we look back upon the original function we can see "in" it or in logical connection with it both its offspring; before their appearance this would have been quite impossible as the old and the new are united by creative production. Nonetheless this passage really

ing, is derived from the experience of disappointment.³⁹ If we are looking for geometric structure and find poetry, we are disappointed and apt to condemn the poetry as chaotic. When we say a room is in disorder, we do not mean that a skilled detective might not discern from the position of the furniture or the presence of footprints on the carpet much of what had taken place in the room. We only mean that for household purposes, or from a certain esthetic approach the room is disorderly.

Thus suppress vital activity and we face inert order. Its appearance is automatic. Since this is the case we need not say that creative process derives its inert opposite from any inert matter. It is merely confronted with its own reflex. Now, this argument is at best a makeshift. It is really in harmony with neither of Bergson's interpretations of creation. (See below, p. 73.) The appearance of orderly system in a world of creative flux is left finally unaccounted for. We do not know what originates the reflex movement or dissolution. Further discussion will bring to light the background of this argument and contrast it with its more intelligible alternative.

belongs to Bergson's irrational philosophy, for the new functions are spoken of as views of a primordial and indivisible activity. This recalls his statement that all form or structure are no more than "views taken of an indivisible process."

³⁹ *Creative Evolution*, pp. 220 ff.

CHAPTER II

BERGSON'S CONFLICTING THEORIES OF CREATION

I

TWO quotations from *Creative Evolution* will introduce the opposed views which we have mentioned. The first is an expression of the esthetic view.

"Thus our personality shoots, grows and ripens without ceasing. Each of its moments is something new added to what was before. We may go further : it is not only something new, but something unforeseeable. Doubtless my present state is explained by what was in me and what was acting upon me a moment ago. In analyzing it, I should find no other elements. But even a superhuman intelligence would not have been able to foresee the simple indivisible form which gives to these purely abstract elements their concrete organization. For to foresee consists of projecting into the future what has been perceived in the past, or of imagining for a later time a new grouping, in a new order, of elements already perceived. But that which has never been perceived and which is at the same time simple, is necessarily unforeseeable."¹

Here creation concentrates material, springing as it does from the past into the present as a simple moment of becoming, a simple form which grants to these abstract elements their unique organization. Here Bergson seems to develop his argument with the esthetic experience ever before him, an experience in which the fresh and the novel flourish, embodied in abstractions or the concepts of our experience, themselves anything but new.

But Bergson is not always willing to consider the development in creative series as a passage of abstractions into concretion, which is the esthetic interpretation of creation. Bergson deserts this view and denies that the creative process is really a synthesis of elements. The clearest repudiation of this position is to be found in a note devoted to M. Séailles's *Genius in Art*, a book which clearly reflects the theories of Ravaisson and Boutroux. Bergson writes :

"In his fine work . . . M. Séailles develops this twofold thesis, that art is a continuation of nature and that life is creation. We should willingly accept the second formula ; but by creation must we understand, as the

¹ *Creative Evolution*, p. 6.

author does, a synthesis of elements? Where the elements preexist, the synthesis that will be made is virtually given, being only one of the possible arrangements. This arrangement a superhuman intellect could have perceived in advance among all the possible ones that surround it. We hold, on the contrary, that in the domain of life the elements have no real and separate existence. They are manifold mental views of an indivisible process. And for that reason there is a radical contingency in progress, incommensurability between what goes before and what follows, in short, duration."²

In this note, Bergson makes two statements that are from our point of view remarkable. First, he denies that creation is a synthesis of elements. Now, are we to interpret Bergson as meaning here that creation is not a fusion of *abstract* elements? This, to be sure, conflicts with other passages. But there is, we suspect, a genuine conflict in Bergson's thought. Thus Séailles's meaning, which we shall examine below (see pp. 74, 75) the meaning to which Bergson has taken exception, leads us to believe that the latter here denies to creation even a fusion of abstractions. This is borne out by the rest of the passage quoted, in which elements are reduced to "mental view of an indivisible process."

To turn to the second point, when Bergson writes that in the domain of life elements have no real or separate existence, he would be correct if he meant no more than that elements in creation are not analogous to bodies of definite, unalterable structure, which can be fitted together as in a picture puzzle. But he goes further when he adds that they are manifold views of an indivisible process, for he implies that elements are only attributed by thought to life, or creation, which really does without them. This is the irrational interpretation of creation, and herein lies a confusion. The statement may be true of creation after the act of production, that is, the student or the critic who examines the product and interprets it may attribute properties to the esthetic product that are foreign to its history. Much analysis is subject to such distortion, ignoring as it does the individuality of the work in question. None the less, can we say that throughout the activity of creation itself, no elements appear save those that are mental views of an indivisible process? Most assuredly, we cannot. We do not create by means of mental views of our creation. Nor do we create through a prolonged flow of expression that is quite simple and indivisible in its content, that is without elements. This latter simplicity comes only as the culmination of the

² *Creative Evolution*, p. 29 n.

esthetic struggle. Creation passes from an isolation of elements which are to be embodied in an esthetic product to a fusion of those elements which are given fresh expression in the act. This is the essence of creation. Without it, creation has no essence and is incomprehensible, being itself subject to no analysis nor present in any scheme of analysis. This latter doctrine is the destination of Bergson's irrational trend, as we shall soon discover.

As we have seen, the irrational view centers in this assertion: The abstract elements which are remarkable in creative process must not be considered as constitutive of the activity by which the dynamic series prolongs itself. On this view, not only is the esthetic product simple and indivisible but also the entire process through which this product is originated is simple and indivisible as well. We use the word *irrational* to imply that in this phase of his thought Bergson sees fit to explain the world of systematic structure and regular articulation as an appearance, the result of the many views that are taken by the spirit of an absolutely indivisible process. Thus we employ the term *irrational* in much the sense that Royce attributes to the word *mystical* in *The World and the Individual*.

An important difference between the esthetic and the mystical interpretation lies in this: according to the first view it is possible to give a definition of the creative process, and indeed Bergson occasionally introduces definition or argues from definitions obviously implied;³ but according to the second interpretation definition is quite impossible. Every attempt in this direction is bound to reduce the idea of free and spontaneous creation to a poor shadow of itself which the rationalist will have slight difficulty in dismissing.

It is obvious that the irrational view must result in such a denial of our ability to understand creation. If a definition involves relating a thing to other things and describing it in terms of the properties which it possesses in common with other objects, then it is quite impossible to define something that is throughout absolutely indivisible and unique. To be sure, this fact offers no reason for maintaining that the indefinable does not exist or that it can never be experienced intuitively. But we are compelled to renounce the indefinable as the metaphysical bulwark of a philosophy of freedom, or of any other philosophy, for we can abstract from it no intelligible content which might be adapted to any doctrine, such as for instance that of universal contingency. The irra-

³ See below, p. 76, for an example.

tional interpretation gives us no evidence that we can consider in support of any sort of world-view. In fact, the one thing that we seem to know about duration and contingency from this point of view is that we have no reason to consider them as anything that may be related to our knowledge of things.

If we refer the irrational tendency of Bergson's thought to a general review of his philosophy, we shall find that certain passages stand in harmony with it, or even if really inconsistent with it, seem explicable in Bergson's thought with reference to it. Let us consider these aspects of his thought and contrast them where we can with assertions that are dominated by the rival hypothesis.

We find a different view of organization implied by the two theories. From the irrational approach, organization is not by any means the life of creation. Pure creation cannot be described as so amphibian a structure as organization, which is neither an inert mechanism nor a sheer moment of duration, enjoying its durational prerogatives. Pure creation or sheer untrammelled freedom is something else, and if we have caught the spirit of the irrational attitude we will not ask what this something else is. All that we can say is that pure duration is by no means limited or thwarted by necessity.

Necessity is, on Bergsonian principles, a sort of limit toward which matter tends to drag the creative reality, which in turn resists the attraction. Organization is the compromise which creation succeeds in making with matter. This doctrine is never clearly stated. It remains essentially metaphorical.

"In reality, life is a movement, materiality is the inverse movement, and each of these two movements is simple, the matter which forms a world being an undivided flux, and undivided also the life that runs through it, cutting out in it living beings all along the track. Of these two currents, the second runs counter to the first, but the first obtains, all the same, something from the second. There results between them a *modus vivendi*, which is organization."⁴ Again on the following page, Bergson continues: "The impetus of life, of which we are speaking, consists in a need of creation. *It cannot create absolutely*, because, it is confronted with matter, that is to say with the movement that is the inverse of its own. But it seizes upon the matter, which is necessity itself, and strives to introduce into it the largest possible amount of indetermination and liberty."⁵ The clause emphasized reveals Bergson's attitude. He

⁴ *Creative Evolution*, pp. 249-50.

⁵ *ibid.*, p. 251.

cannot believe that the actual world is creative process, it is rather a dilute extract of such process.

On this view, all structure, even of the vital and the organic pattern, is a detention of freedom, an encroachment of the inert upon the domain of the creative. We thus fall into the clutches of a Neo-Platonism: the soul is withheld from life and full enjoyment by the dull weight of the body which obscures its vision and drags upon its steps. We may go further and say that the soul exists despite the body! None the less, reflection will show us that Bergson is really honoring body and the animal organism by allowing it to possess the importance that it does. I think it is his reluctance to dismiss biological organization as sheer illusion that withholds him, when the irrational demon possesses his thinking, from reducing every moment of order and articulation to mere distortion of the real, which strict adherence to his doctrine should require. But this he will not do; he is too fascinated by the notion of life. But neither will he desert the irrational theory, at least not for the time being; he will not admit that duration has essential structure. And so he must describe pure duration or creation as disintegrating into differentiation of structure at the onslaught of necessity, and striving the while to repair the damage. This is the mystical origin of organization.

This generates a dualism in Bergson's account of world-process. The process of construction is manifest in the organic release of energy, rather than in the truly creative process by which energy is stored in living reservoirs. Intellect is more at home with destructive non-vital processes than with creative vital ones, whose power baffles its comprehension as does all creation which intellect can only falsify in apprehending.⁶ None the less, does it not seem strange that but one side of nature should be a matter for accurate definition while the other is not subject to definite formulation? Is this not an arbitrary limitation of our ability to understand the world? A dogmatic assertion that what is not yet comprehended is by nature incomprehensible, when perhaps this baffling realm is baffling only because of its greater complexity? We need not deny that a vital tendency or direction exists in nature, but we may very well doubt that this tendency is such that it can only imperfectly be analyzed and never understood.

From this point of view, intellect and matter are cognate, both being generated by a detention of creation, a relaxation of creative energy similar to the relaxation of psychic *élan* which occurs when we cease to apprehend an esthetic object as a work of art or a thing of beauty and

⁶ *ibid.*, p. 270.

survey only its commonplace aspects. Intellect is thus restricted thought and matter restricted process. Strange to say, this restriction emanates from creation, which thus unmakes itself.⁷

How different is the account of creation given in the first pages of the *Creative Evolution*! Here we have no formless reality, rather we find that organization is the life of duration whose creative surge is essentially organizing force, which fuses together a set of abstract patterns or possibilities of creation. This latter interpretation of vital or creative activity is expressed superbly in the essay on *Intellectual Effort*. Here organization is the essence of creation, not its compromise with matter.

"The author writing a novel, the dramatist creating his characters and situations, the musician composing a symphony, the poet composing an epic, all have in mind first of all something simple and abstract, something, so to say, incorporeal. For the musician or the poet it is a new impression, which they must unfold in sounds or in imagery. For the novelist and dramatist it is a theme to be developed into events, a feeling individual or social to be materialized in living personages. They start work with a scheme of the whole, and it is obtained when they reach a distinct image of the elements."⁸

Here creative process does not set itself against a material which it strives to overcome, rather it seeks material embodiment, and cannot be called successful until this is attained. "Pure" creation on this view would be nothing but the hypostatization of unsuccessful creation which fails to embody itself in products of definite form. Creative thought begins with a comparatively simple plan of procedure and plunges toward the concrete embodiment of this scheme in concrete imagery. This is the view of M. Séailles, rejected by the irrational Bergson but in all respects welcomed by the esthetic.

⁷ *Creative Evolution*, pp. 199-206; see Ruggiero, *Modern Philosophy*, translated by Hannah and Collingwood, London, 1921, p. 179. Ruggiero notes that this difficulty is also scored by Aliotta.

⁸ *Mind Energy*, translated by H. Wildon Carr, New York, 1920, p. 212. Compare LeRoy's interpretation of immediacy in his *Pensée Intuitive*, p. 141. LeRoy seems to have escaped the pitfalls of the irrational position:

"L'immédiat est atteint à propos d'un objet particulier, lorsqu'on a réussi à revivifier tout entière en acte l'opération de morcellage qui engendre cet objet; le donné immédiat correspondant n'est pas autre chose que le reste du réel, je veux dire ce qu'on n'a pas besoin de mobiliser ainsi pour résoudre le problème restreint qu'on a en vue, ce reste étant d'ailleurs considéré lui même du point de vue créé par le morcellage en cause."

Immediacy is, then, not a temporal starting point, nor is it to be seen without a point of view, which of course introduces conceptual elements into the activity of apprehension.

"Thus the work of art is created by the free movement of life, which organizes ideas and images into harmonious form, all of whose elements are in reciprocal relation (*se répondent à*) with one another and with the dominant idea which coordinates them."⁹ The dominant idea is the *motif*, the *idée maîtresse* of Ravaisson.

On the esthetic view concepts possess a reality *ante rem* as well as *post rem*. Otherwise duration cannot be described as activity or as production. Indeed it cannot be described as anything but the inexplicable appearance of something that seems unique. From the irrational approach there is no intelligible operation described by which creation comes about. It is a bit of supernatural pyrotechnics. And this indeed it seems when from the mystic point of view Bergson describes freedom.¹⁰

"... At the very minute when the act is going to be performed something may revolt against it. It is the deep-seated self rushing up to the surface. It is the outer crust (of intellectual thought) bursting, suddenly giving away to an irresistible thrust. Hence in the depths of the self, below this most reasonable pondering over most reasonable pieces of advice, something else was going on—a gradual heating and a sudden boiling over of feelings and ideas, not unperceived, but rather unnoticed. . . . We wish to know the reason why we have made up our mind and we find that we have decided without any reason. But in certain cases that is the best of reasons. For the action that has been performed does not then express some superficial idea, almost external to ourselves, distinct and easy to account for; it agrees with the whole of our most intimate feelings, thoughts and aspirations, with that particular conception of life that is the equivalent of all our past experience. . . . It is at the great and solemn crisis, decisive of our reputation with others, and yet more with ourselves, that we choose in defiance of what is conventionally called a motive, and this absence of any tangible reason is the more striking the deeper our freedom goes." Again in *Creative Evolution* a similar thought makes its appearance. "But in speaking of a progress toward vision, are we not coming back to the old notion of finality? It would be so undoubtedly, if the progress required the consciousness or unconscious idea of an end to be attained. But it is really effected in virtue of the original impetus of life; it is implied in the movement itself."¹¹

In the latter passage, Bergson has reason to deny finalism, the doctrine which explains telic action as movement along an eternal plan. But from

⁹ *Le Génie dans l'Art*, Paris, 1883, p. 170.

¹⁰ From Bergson's *Time and Free Will*, p. 170. By permission of The Macmillan Company, publishers.

¹¹ *Creative Evolution*, p. 96.

this it does not follow that we must renounce all idea of end, and reduce creative process to what seems perilously near to mere impulse. But even so, these statements are not without real insight. As Bergson maintains in the first passage quoted, creative action and decision do often dismiss conventional notions. And they do at times appear suddenly. But such decision must go hand in hand with reflection and judgment, and its relation to these must be shown explicitly. As M. Séailles writes :

"While the work of art is forming itself in the spirit, reflection watches its birth and growth. While effacing itself, in order not to substitute its own impotence for the power of life, which alone gives life, it accompanies the work, follows its successive phases ; it intervenes incessantly ; it plays with what is offered, judges it, criticizes. Thus reflection prevents the birth or the endurance of monstrosities."¹²

To be contrasted with the catastrophic outburst of novelty above described, is Bergson's saner account of creative life as a matter of effort, a state of psychic elevation which we can only maintain as an act of will. Concentration of our past experience, of the impressions of past sensitivity, requires a real tension of the spirit. Once this is relaxed we sink into disorganization and automatism. Such effort is described at some length in the essay on *Intellectual Effort*. It is involved in passage from the more abstract to the more concrete, when we try to fuse a new "manner of go" or organization into unformed habits, whether these be our customary habits of discourse, or types of bodily movement, our habitual physical equipment.¹³

The rôle played by "being," to use the Platonic term, in creative process differs according to the interpretation in question. From the irrational approach as we have seen, creation is quite apart from being. It is in no sense contaminated with any definite structure. It is indeed doubtful that the irrational duration can be differentiated so far as to allow any enduring structure such as, for example, personal identity. However the past, the dead body of once living duration, is not necessarily so alogical and structureless. Bergson sometimes speaks as if in the "finished product" we face a determinism comparable to that of an eternal being, where each moment is what it is necessarily by virtue of its position in the whole.¹⁴ But here Bergson is clearly in error and inconsistent. A past contingency does not become a necessity simply because it is past ; its relation to its antecedent conditions is as contingent

¹² *Le Génie dans l'Art*, p. 170.

¹³ *Mind Energy*, p. 216, circa.

¹⁴ See for example *Creative Evolution*, p. 200.

as ever in the sense that its entrance upon the scene of the concrete cannot be predicted with reference to its antecedent conditions. Such a past event is necessary only by virtue of its brute existence, which memory has difficulty in denying. To be sure, in the past we will find a definite organization which is denied to the future of a creative series. But this definite structure exists as such only because it has been so created in the contingent process.

Now, this relegation of being to the past is indeed but shabby treatment to offer so time-honored a concept as the Platonic Form. And in so doing, Bergson ignores its true importance. For being was not for Plato merely orderly structure, it was also a vehicle of power.¹⁵ Hence we cannot say that we do justice to the concept if we dismiss it from creation without considering whether or no creation is really possible if entirely removed from it. I think we shall, as regards the last question, conclude in the negative. We have already noticed that Bergson at times considers creation as a fusion of elements. In his treatment of memory we shall find that being is reinstated in the guise of patterns of activity and that in this way being is introduced into becoming.

On the esthetic theory, it is memory or, in nature, something akin to memory that supplies the means by which order is generated in creative process. It is through memory that pervasive structure is maintained. It is thus memory that withholds contingency from sinking into brute caprice. So intelligent purpose is made possible. Interpreting memory from this point of view, Bergson has reached a novel conclusion concerning its nature.¹⁶ Memory is not a store of images which are called to consciousness by means of association. Rather it is a manual of action, an index, whose contents must, however, be interpreted, of methods of procedure upon which practise must depend for material. Thought is always to some degree conative and hence it preserves not a collection of snapshots to illustrate its past but an arsenal of weapons to insure its future. To be sure, every memory as it enters consciousness is clothed in imagery. But the image is chosen by memory itself and serves to link it with present perceptions or memories previously recalled. Pure memory is imageless or free from any given image. It is a plan of action that we have developed in the past. It is clothed in imagery only as we seek to employ it.

The gulf between memory and perception Bergson indicates by referring to the phenomena of psychic blindness, pathological states in

¹⁵ *Sophist*, 247.

¹⁶ *Matter and Memory*, Chaps. II and III.

which memory fails to be of use in actual practise, although the patient may be able to recall spontaneously the required information. For instance, a subject may be able to give an adequate description of a room in which he is incapable of finding his way, even though his senses are intact. The failure of recognition, that is, of the union of memory and perception, has been explained in terms of the associationist psychology as the result of imperfect connection between the brain areas of sensation and those wherein sense images are stored. The adherents of this theory were committed to the hypothesis that memory or imagination is decaying sense. For them a memory image was a less vivid counterpart of its original. This hypothesis Bergson rejects. If memory is of this sort why do we not mistake a faint noise in the present for a loud one heard in the past? And again, how is it that we recognize a sensed image as the counterpart of a memory? The two are certainly not precisely alike. Consider our reception of a sentence spoken in a language with which we are not familiar. The speech is recognized, the sounds interpreted as coherent meaning. Yet surely the accent, the qualities of the voice which one speaker employs differ markedly from those of another. And yet we recognize the words.

Recognition is, then, not a simple matter: it is really interpretation, a relation of our present to our past by means of which we acquire an attitude toward the future. The act of memory is a selection from our past of habits useful in the present situation. For instance, upon the flow of sound that we are to interpret as speech, we bring to bear our past responses to the words employed. These we adapt to the occasion in order to construct a continuous intelligible meaning that we may attribute to the speaker.

Thus we associate not only in terms of images but of situations. This is supported by the fact that a word in one tongue possessing a different meaning in another is not in actual conversation or reading confused with its foreign meaning. The criterion of our selection of an appropriate meaning is the pattern of our mental action in face of the given situation. This links us to some past experience, mental activity with regard to which was in some respects the same as that which we are about to initiate. From the past we may recover valuable material for the completion of our course of action.

This pattern of activity is of course abstract, and must be brought into contact with the concrete situation through ingenuity of application. This operation may occur with amazing rapidity. Consider, for example, the agility with which, say in repartee or even in conversa-

tion, we draw words and phrases to fit our "intended" meaning. This requires not only embodiment of patterns in imagery, but also the freeing of these patterns from irrelevant imagery. Memories must, so to speak, be stripped for action as they are rendered applicable to our needs.

Our choice of action pattern to be followed or scheme of meaning to be embodied has a contingent element in its operation. We must proceed to some measure through trial and chance acting now on one suggestion, now on another. These suggestions have a partially arbitrary origin. Selection, of course, discards many useless ones, but even so the mind is often confronted by a confusing irrelevance which it must recognize as such and discard. The mind is thus often at the mercy of suggestion, waiting impatiently at the beck and call of the irrelevant, which may at times appear under a specious disguise. In such cases memory is dependent upon association more obviously than is usual and must await fortunate suggestion from association by resemblance, contiguity, or of habitual memory, the repetition of memorized series in order. Bergson has not emphasized the true importance of suggestion, but in two places at least he has clearly used the term in the sense above given. Without such suggestion, action patterns cannot come into contact with actual situations. (See below, pp. 92, 140 ff.)

"... The generative idea of a poem is developed in thousands of imaginations which are materialized in phrases that spread themselves out into words. And the more we descend from the motionless idea, wound on itself, to the words that unwind it, the more room is left for contingency and choice. Other metaphors called up by other words might have arisen; an image is called up by an image, a word by a word."¹⁷

The sphere of creation is limited by habit, which we employ gladly as it frees us from too minute attention to every motion or expression. Through habit, we do not recall the past; we act it. Habits and memorized series of words or acts give us in operation no inkling of their origin once they are thoroughly mastered. They have lost their reference to our past and become ready-made equipment for the present, which we can bring into employment at will.

The lieutenant of memory is obviously intellect, and in Bergson's theory the two work together. Analysis breaks the content of our experience into phases which can endure in memory and come forward for use. Not only does analysis supply memory with material, but memory makes analysis possible. When we break a moment of experience into its

¹⁷ *Creative Evolution*, p. 320; see also *Mind Energy*, p. 210.

elements, we are recognizing as embodied in that whole structures already encountered. Memory and intellectual analysis thus work hand in hand, the one at a loss without the other.¹⁸

So we find memory the fundamental function of thought. Both esthetic activity and intellectual analysis are subordinated to it. This is very significant as it indicates that intellect and intuition, or esthetic activity, which is involved in all interpretation, cannot be absolutely separated. Bergson has treated recognition of words in conversation as a matter of interpretation through which the meaning of what has already been said suggests possible interpretations which seek embodiment in our understanding of the spoken words. Here surely the so-called intellectual abstraction and ignoring of superfluous quality assumes an esthetic aspect.

Further, we find when we consider the importance of memory in creative activity that creative process involves abstractions and works them toward concrete embodiment. To be sure, memory is plastic in process. Our solution of a problem always goes beyond and often transforms the patterns of action chosen, but this does not alter the fact that memory operates through the employment of schemes which possess a conceptual universality of application, even though in every instance some special mode of application may be necessary.

Here we have the nucleus of the esthetic theory of creation, according to which conceptual patterns are employed in the making of becoming. These patterns are clearly more than "views taken by mind of an indivisible process."

The relevance of intelligence to esthetic production is in his latest book again admitted by Bergson. To be sure, he insists that the full esthetic experience is more than intellectual and this we hasten to admit—an organic whole is more than the juxtaposition of its parts. Bergson writes of a super-intellectual emotion. This is to be distinguished from an infra-intellectual emotion which is no more than an "agitation following upon a representation." The super-intellectual emotion "precedes the idea and is more than idea, but [it] expands into ideas if it wishes, being pure soul, to possess a body."¹⁹ This seems to be the *dominant idea* of Ravaisson, Boutroux, and Séailles, the first "conception" of a work of art.

However, Bergson is not, in his latest book, free from the irrational philosophy. In the fascinating discussion of philosophical mysticism

¹⁸ *Matter and Memory*, pp. 206-8.

¹⁹ *Les deux Sources*, etc., p. 270.

which occurs in the third chapter of this work, he has drawn a distinction which comes very close to stating the difference between the esthetic and the irrational views of creation. An artist may achieve the intuitive level by struggling with his medium and his plan of procedure, choosing, discriminating, discarding until finally he attains a point where discrimination is no longer mere discrimination, where he finds acceptance or refusal of his work spontaneously obvious. In such an experience, esthetic quality is grasped and the whole "judged" all at once. Now, when Bergson introduces his distinction between the two forms of esthetic production, he maintains that the process above described need not occur, that the author may find his words springing spontaneously from indivisible emotion.²⁰ This may refer only to very rapid composition, such as occurs in convivial conversation where the search for the *mot juste*, its contemplation and approval occur in a moment or to one of the phenomena of "possession" wherein writing seems automatic. But Bergson does not so interpret it and thus he retreats into the irrational philosophy. It is important to notice that he considers the second type of production the more significant in describing cosmic creation.²¹

It is interesting to notice that Bergson, when describing the growth of a poem, speaks of its *generative* idea, thus suggesting that the idea, the first vision of what is to be embodied, is the active source which produces the embodiment, is really the creator. Ideas seem to "express themselves." Often the attitude of the artist is, at least, at the start one of "wise passiveness." The effort which supports creation is one of attention, holding the mind before a given field, and allowing ideas to come in contact one with another until the generative notion finds satisfying embodiment.

" . . . Man's faculty of creation, rare in him
and not at his command, is but Nature herself,
who danceth in her garden at the blossoming-time
'mong the flowers of her setting; and tho' true it be
that Art needeth as full devotion and diligence
in the performance as doth Virtue, yet i' the mind
of the artist Nature's method surely is on this wise;—
the Ideas which thru' the senses hav found harborage,
being come to mortal conscience work-out of themselves
their right coordinations and, creatively
seeking expression, draw their natural imagery

²⁰ *ibid.*, p. 272.

²¹ *ibid.*, p. 273.

from the same sensuous forms whereby they found entrance;
thus linking up with the long tradition of Art.

The manner of this magic is purest in Musick,
but by the learner is seen more clearly in poetry,
wherein each verbal symbol exposeth its idea,
so that 'tis manifest by what promptings of thought
the imaginativ landscape is built and composed,
and how horizon'd: And the secret of a poem
lieth in this intimat echo of the poet's life."

(*Testament of Beauty*, IV, 974-93.)

Of the arena of such activity Bridges writes as follows, mentioning

"... thatt swarming intelligence where life began,
and where ideas wander at liberty to find
their procreative fellowship; thatt fluid sea
in which all problems, spiritual or logical,
aesthetic, mathematic or practic, resolve,
melting as icebergs launched on the warm ocean stream:
and whereso'er this corporat alchemy is at best
'tis call'd by all men Genius."

(IV, 816-24.)

2

The philosophy of Bergson has been severely criticized. The most trenchant of these criticisms are not to be answered from the irrational point of view, although they present no difficulty when viewed from the esthetic. Those who claim that Bergson has betrayed reason and surrendered his philosophy to the mercies of an inarticulate insight are those who see only his irrational side. None the less the criticisms which these writers advanced reveal the fatal weakness of the irrational theory.

There is the objection already mentioned above, which is expressed at some length by Mr. McKellar Stewart.²² It runs as follows: Bergson has forfeited the right to claim any philosophical texture for his thought. The reality which he considers the justification of his assertions justifies no assertions and stands aloof from all predication. Stewart writes that since duration is beyond all determination recognized by thought we have no right to predicate of it an outcome of thinking, or any structure developed in thought. Why then should we call our life in duration a life of freedom? Why indeed call it anything?

²² J. M'K. Stewart, *Critical Exposition of Bergson's Philosophy*, London, 1911, pp. 248 ff.

This argument is significant in that it quite undermines the spiritual value of the mystic interpretation of creation. We are left with no doctrine that explains man's power of initiative, for we are left with no doctrine applicable to the realm of common experience.

Another very similar attack²³ undermines Bergson's right to a philosophy by denouncing intuition as an organ of philosophical research. Intuition reveals an immediate which cannot be universalized and related to other aspects of reality, for the reason that intuition, the mystic intuition, makes no use of categories or classes, by means of which its content may be applied beyond the immediately perceived. How then can we make of this immediate a universal character of all things?

This theme has been further developed by Santayana and Lovejoy,²⁴ and the most precious element of Bergson's thought, humanly speaking, has been denied him as unsupported by the immediate of which he writes. These critics would deny the application even of the term "duration" to a sheerly immediate, undifferentiated object. Santayana, writing in this vein, prophesies the return of many Bergsonians to a more conventional form of mysticism, in which the unforeseeable aspect of things will be surrendered along with all other categories, reality being interpreted as one flash of immediacy. Santayana continues:

"A real fluidity and an absolute immediacy are not compatible. To believe in real change you must put some trust in representation, and if you must posit a real past and a real future you must posit independent objects. [Perhaps Santayana's realism is too much in evidence here, why not merely "distinct objects"?] In absolute immediacy, on the contrary, instead of change being taken realistically, you can have only a feeling of change. The flux becomes an idea in the absolute, like the image of a moving spiral always moving outwards and inwards but in its center and circumference always immovable. Duration, we must remember, is simply the sense of lasting; no time is real that is not lived through. Therefore various lives cannot be dated in a common time, but have no temporal relations to one another. Thus, if we insist on immediacy, the vaunted novelty of the future and the inestimable freedom of life threaten to become (like all else) the given feeling of novelty or free-

²³ C. A. Teodorescu, *Die Erkenntnislehre Bergsons*, Jena, 1914, p. 42; R. Kroner, *Logos*, 1910, Band I, S. 148.

²⁴ A. O. Lovejoy, "The Problem of Time in Recent French Philosophy," *Philosophical Review*, Vol. 21, p. 327.

dom, in passing from a given image of the past to a given image of the future—all these terms being contained in the present, and we have returned to the familiar conception of absolute immutability in absolute life."²⁵

In the last sentence, I suspect that Santayana oversteps himself. By rights, the mystical Bergson cannot rest on the summits of even the most mystical absolutism. The divorce between intelligence and will which his philosophy asserts banishes him from such a realm. An absolute may after all be apprehended through itself, and this appearance will reveal, if not a fulfilled purpose, then at least a vast network of order splendid in its logical perfection. But this is not so when we contemplate the monster of Bergson's thought. Indeed it is fortunate that we have no cause to consider this brute as temporal or developing, for if we did, a most discouraging ogre we would have to make of him; a hurrying time-spirit, blind and irresponsible without conscious purpose or direction. In fact, we could not speak of evolution at all. Watts Cunningham writes thus of the mystical evolution:

"A process which is turned toward the impalpable void, which knows no leading and seeks no end, would . . . be no process at all."²⁶

There is another type of attack which proves equally successful against the irrational interpretation of becoming. M. Delbos challenges a central point when he questions Bergson's right to prefer an intuited flux to an intellectual structure. Why, after all, put faith in one and not in the other? Bergson has suggested that to suspect the reality of a flux immediately grasped is only a philosopher's fancy.²⁷ No one but a philosopher would go to so outlandish an extreme. But, as Delbos suggests,²⁸ one purpose of philosophy is to evaluate the manifold evidence concerning the nature of reality that we encounter in our experience. It is thus philosophy's office to doubt and to seek and criticize possible grounds for doubt. From this point of view it may well be intuition that is at fault and not intelligence. The objects of intuition may be the distorted ones and becoming may be only a garbled being. To assert the opposite may be only the outcome of a very marked prejudice against the intellect, which is after all the only aspect of our cognition in which some

²⁵ *Winds of Doctrine*, pp. 97-8.

²⁶ G. W. Cunningham, *A Study in the Philosophy of Bergson*, New York, 1916, p. 160.

²⁷ *Matter and Memory*, p. 207.

²⁸ V. Delbos, *Revue de Métaphysique et de Morale*, Tome V, 1897, pp. 353-89.

thinkers, notably Plato and Descartes, have found any clarity or trustworthiness. Once we face the situation in this light, what right have we to prefer becoming, or immediately perceived flux, to being? (See above, p. 60.)

A further quotation from Santayana will indicate how serious a preferential judgment has been made against intellectual structure. Santayana attacks in the interests of cosmology rather than in those of theory of knowledge. He refuses to accept as anything but arrant dogmatism the assertion that the exquisitely articulated system which our science discovers can be the outcome of an undifferentiated simplicity. He writes:

"Herbert Spencer says somewhere that the yolk of an egg is homogeneous, the highly heterogeneous bird being differentiated in it by the law of evolution. . . . Leibniz, on the contrary, maintained that the organization of nature was infinitely deep, every part consisting of an endless number of discrete elements. Here we may observe the difference between good philosophy and bad. The idea of Leibniz is speculative and far outruns the evidence, but it is speculative in a well advised, penetrating, humble and noble fashion; while the idea of Spencer is foolishly dogmatic, it is a piece of ignorant self-sufficiency, like that insular empiricism that would deny that Chinamen were real until it had actually seen them. Nature is richer than experience and wider than divination; and it is far rasher and more arrogant to declare that any part of nature is simple than to suggest a sort of complexity that perhaps it might have. M. Bergson, however, is on the side of Spencer. After studiously examining the egg on every side, and considering the source and destiny of it, he would summon his intuition to penetrate to the very heart of it, to its spirit, and then he would declare that this spirit was a vital momentum without parts and without ideas and was simplicity itself. He would then add that it was the free and original creator of the bird, because it is the essence of spirit to bestow more than it possesses and to build better than it knows." Whereupon Santayana concludes, "Doubtless new things are always arising, new islands, new persons, new philosophies; but that the real cause of them should be simpler than they, that their Creator, if I may use the language, should be ignorant and give more than he has, who can stomach that?"²⁹

These arguments all refer to the mystical theory of creation. They all presuppose that patterns of creation or plans of procedure are foreign to

²⁹ *Winds of Doctrine*, pp. 89-90.

creative process. I think the arguments are sound in so far as they go. But there can be no doubt that they fail to consider the alternative interpretation. None of them has considered creation as a fusion of elements, all have emphasized its immediate simplicity. This is somewhat surprising when we reflect that in so prominent a discussion as his doctrine of memory, Bergson has committed himself to the esthetic interpretation. But Bergson's confusion of the two points of view has obscured his meaning and resulted in much misunderstanding. The writers whom we have mentioned above are but a few of the many who have questioned Bergson's position, but their arguments are typical of the whole group.

CHAPTER III

RESOLUTION OF THE CONFLICT

I

THE mystical theory has been shown to be inadequate. If we wish to find any assistance in Bergson's thought toward framing a reasonable account of reality, we must turn to the esthetic view. We shall find, however, that Bergson's philosophy must be altered if this is to become possible. For Bergson has built much of his philosophy upon mystical tenets. There are, then, two doctrines that we must refute: One, that if creation is a fusion of elements it is really subject to determinist principles; and two, that it is impossible to conceive of things save under determinist categories. Once these dogmas are cleared away and saner principles put in their place, we shall see the true significance of the esthetic theory of creation.

Let us consider the first point. In his note on Séailles's work, Bergson writes:

"... By creation must we understand, as the author does, a synthesis of elements? Where the elements preexist, the synthesis that will be made is virtually given, being only one of the possible arrangements. This arrangement a superhuman intellect could have perceived in advance among all the possible ones that surround it."¹

Now, if it is true that to admit elements into creative process is to surrender to determinism, Bergson has reason to avoid Séailles's position, for to accept it would amount to surrendering the temporal plasticity of his universe. But on the other hand, if he retains his criticism of Séailles, Bergson has unwittingly undermined the only clear account of creation that he has written and thus given himself unarmed into the hands of his critics, who may assert that this statement commits Bergson to renounce the freedom and contingency described in his elaborate account of esthetic creation.

Let us examine further Bergson's criticism of Séailles's theory. We must begin by distinguishing between two kinds of elements, constitutive and material. Bergson does not employ the terms but we shall find them useful in discussing his position. Constitutive elements are the abstract patterns which are employed in creative activity and drawn

¹ *Creative Evolution*, p. 29 n.

together into harmonious union. They are not fully determined as regards their relation to other constitutive elements nor as regards their precise concrete embodiment until full creation has taken place, and a concretion has been achieved.

Consider the relation of the pattern of blank verse to the pattern of lyric poetry and we realize at once the indetermination that is inseparable from such a connection. This indetermination can only be overcome by a process of creation which unites the two, viz. the composition of a lyric poem in unrhymed iambic pentameter. Constitutive elements are thus plastic in that they may be worked together in an indefinite number of ways. All this is true even of constitutive elements containing inert series, like an elaborate architectonic which an author endeavors to weave into his text. The precision of this order governs creation only as final cause, creative activity striving to produce a concrete product which will embody this inert series. Material elements, however, lack this plasticity. They are not subject to development, for they are the terms that appear in the inert series. An example of Bergson's will help us distinguish between the two.

"When a poet reads me his verses, I can interest myself enough in him to enter into his thought, put myself into his feeling, live over again the simple state he has broken into phrases and words. I sympathize then with his inspiration, I follow it with a continuous movement which is, like the inspiration itself, an undivided act. Now, I need only relax my attention, let go the tension that there is in me, for the sounds, hitherto swallowed up in the sense to appear to me distinctly, one by one in their materiality. . . . In proportion as I let myself go, the successive sounds will become the more individualized, as the phrases are broken into words so the words will scan in syllables which I shall perceive one after another. Let me go still further in the direction of dream; the letters themselves will become loose and will be seen to dance along, hand in hand on some fantastic sheet of paper. I shall then admire the precision of the interweavings, the marvellous order of the procession, the exact insertion of the letters into the syllables, of syllables into the words and the words into the sentences. The further I pursue this quite negative direction of relaxation the more extension and complexity I shall create; and the more admirable will be the order that seems to reign undisturbed among the elements."² (Here we have Bergson in his mystical mood in so far as he maintains that all distinguishable elements are extracted from sheer duration and represent nothing positive.)

² *Creative Evolution*, p. 209.

The elements here described are the material, words, syllables, and even letters into which the constitutive elements, the generative ideas of meaning to be expressed and schemes of form to be employed, may be broken down. Material elements are derived, according to accepted rules and conventions, from duration which has arisen from a fusion of constitutive elements. This does not render material elements arbitrary, for they depend for their arrangement upon the nature of the duration in question. *None the less, they do reveal creation in a manner which ignores its history and telic development.*

We may describe material elements in two ways. First, we have in science the distinctly recognizable, comparatively simple objects of experience which lend themselves to the ingenuity of the observer who discovers relations between them. Thus bodies with their recorded weights and spatial and temporal measurements, concrete instances of color, odor, etc., are such material elements, or at least may be treated as material elements. These material elements supply terms for measurement and classification that are carried on without reference to any purpose initiating their existence. For instance, Descartes's eagerness to assure the possibility of a homogeneous spatial extension and its primary mathematical qualities was perhaps because of the fact that the new physics needed such entities of spatial nature as material elements in its calculations. Hence Descartes strove to describe them as clearly evident to mind.

The second type of material elements are the terms to be found in the inert series that is not embodied in concrete creative achievement, or in the actual concrete world. These elements might be described as precreational. They are the terms of the inert series that are held in mind as possibilities or requisites of the creation in progress. These terms aid creation by giving expression to the unembodied series that must be held in mind. Thus a poet's schematic presentment of meter—perhaps a singsong of nonsense syllables—would contain such elements.

Material elements link the situations in which they stand to the past and future according to the principles of transeunt or efficient cause. Series of material elements may be observed to pass through a number of situations, that, from the teleological point of view which reveals constitutive universals, are clearly distinct one from another. Thus material elements do not reveal the telic origin and justification of the movements of creation in which they are embodied. They do reveal the way in which these modes of embodiment are woven together in the concrete. Material elements have to do with what Whitehead has called

the morphological as opposed to the genetic aspect of reality. (See below, p. 141.)

Spatial structure may indeed be the most prominent characteristic of material elements considered as an interrelated class. We shall find later that Whitehead has interpreted spatial form as the most general principle of the realm of concrete togetherness—of the morphological realm above-mentioned. To be sure, a constitutive universal *ante rem* may contain within itself spatial pattern relevant to its members, but it need not be spatially related to other universals.

Creation, then, does not proceed in terms of material elements; no more do I compose these lines letter by letter, or even word by word, but through a growing embodiment of original scheme in grammatical English phraseology. Creation is not mere arrangement or rearrangement of parts, precisely because constitutive elements are unlike material elements, which are not in the least plastic, being limited to definite units of recognition. A group of constitutive elements drawn into material union assumes a more and more definite organization, which in completed creation finally takes on concrete existence and final coherence of structure. But despite this final coherence, it is quite impossible to foresee exhaustively the structure of a product by enumerating the various constitutive elements which were contemplated as possible ingredients, and then by considering all possible combinations of these. This is because there exists, prior to creation, no given scheme in which we could fit all these elements together. It is not a matter of piecing together a jigsaw puzzle into a spatial whole, for the elements in question have not attained their full concrete embodiment and will not until production is complete. Thus the system of their harmonious union is not foreseen in its coherent form but merely postulated as an end to be attained, a final term whose nature is unknown, albeit we may be acquainted with certain characteristics which we hope successfully to weave into the system.

So, when Bergson asserts that if creation be a synthesis of elements, creative activity can be reduced to an "arrangement" of parts, he must be thinking of material elements. For the constitutive have no concrete, determinate structure until creation is complete, and hence could not possibly be "arranged." Rather they must be fused together and this involves creation.

Now, suppose a superhuman intelligence that faced all possible combinations of certain material units—let us say of English words and punctuation marks. All possible texts of English composition, along

with an enormous heap of nonsense would be materially before him—yet not one poem, novel, or essay would there be before him, not one image or plot or idea! In order that these combinations of words be judged for their meaning, and those of them recognized as compositions that possess significance, intelligence must read and interpret them, judging whether or no they might be classed as embodiment of meaning. This task would be one of wit and constructive thinking. Consider the fine judgment necessary to distinguish by reference solely to meaning between what seemed a good translation of the *Critique of Pure Reason*—and there would be many that might pass as such—and one that in places failed to convey any coherent meaning, of which class there would be of course an innumerable host. Indeed, foresight by means of material elements is nothing at all unless the combinations be interpreted. But interpretation is itself an act subject to the conditions of esthetic insight. It is indeed creative in so far as paraphrase is essential to interpretation.

Creation has been described as a synthesis of elements by A. N. Whitehead in his philosophy of organism. The elements are, however, eternal patterns, not concretions, although Whitehead insists that the continuity of nature is preserved by the fact that new concretions must dovetail with or conform to previous productions. Whitehead also describes the subsistence of a hierarchy of possibility built up as a combination of the elements of potentiality. However, this structure of possibility, although unfathomable in its wealth is itself purely conceptual, i.e. it is deficient in actuality. From this it is evident that for Whitehead creative production is more than a mere selection and approval of possibilities. The plunge of possibility into concretion requires acts of decision that cannot be solved by mere contemplation of logical patterns. The realm of subsistence is like a scheme of possible plots contemplated by an ideally perfect master of the technique of fiction. This structure is related to the ever-changing swirl of creative production as schematic plans are related to final achievements. (See below, p. 136.)

We have found, then, that we have nothing to fear from the specter of prediction through material elements. Let us now investigate, as thoroughly as we can, an important point closely related to the above, the place of contingency in creation, in genuine creation which employs constitutive elements. There seems clearly to be some sort of contingency here, for structure and organization come to be through the creative act and are not the cause or ground thereof. Without relying upon

some definite structure or order we cannot predict future order. This is clear enough. But how are we to describe this contingency and how relate it to the birth of the close-knit structure which the esthetic product possesses? We must remember that we are in danger of incurring the rationalist criticism that we conjure order out of chaos.

Bergson has said in an unguarded moment that there is no disorder or contingency.³ Our apprehension of such a pseudo-entity is only a matter of disappointment, occasioned by the fact that we expected either inert or creative system and have discovered the other. On these grounds then must we say that we have only a confused notion of creative contingency? Is it really inert system suddenly perceived as underlying the collapse of creative process? If so, is the contingency real, is it not rather an idea resulting from our imperfect knowledge of creative process and its ways? We are not eager to admit such a doctrine. Yet how are we to avoid a similar statement, if we admit that contingency in creation is only a sudden passage into inert order?

We must admit that Bergson is right. Contingency is as he describes it or it is something so mysterious that we can never describe it. But when we say that creative process in some way depends upon inert system, we must carefully explain our meaning. Contingent creative process does not depend upon the structure which it is fashioning. The explanation of the contingency must lie in the working of the creative mind.

Consider the association of ideas, for which there are rules to be formulated. A creative mind turns upon its past to draw forth patterns for discourse or action. It is at the mercy of the ideas that occur to it; creation as we have already noted awaits suggestion and cannot do entirely without it. This turning to suggestion is contingent from the point of view of the creator.⁴ Still, it is quite orderly according to whatever system determines the order of the association which preserves contact between the various patterns of procedure in memory.

These contingencies supply us only with external transit from image to image, a transit in which we often go astray, confused among inessentials. When we come upon a possible organization of patterns we must judge and accept or reject it. Here interpretation is necessary and a creative process must be initiated.

Association cannot reveal plans of action. It can only carry the mind's attention to realms wherein insight may discern something of value for creation's purposes. This latter grasp of the situation is

³ *Creative Evolution*, pp. 220 ff.

⁴ cf. Ravaisson, *De l'Habitude*, Baruzi's edition, Paris, 1927, p. 59.

esthetic, as we have said. Hence prediction in terms of association patterns could never carry the "calculator" beyond the fact that certain realms of past experience were to be traversed and searched for suggestion. This might conceivably be foreseen in terms of a scheme of prediction according to which a certain realm of experience might be recognized as associable with another in a given mental situation, association being more precisely understood than it is in our present psychology. (Of course, we do not suppose that for cosmic creation the principles of associative suggestion are similar to those that hold sway in our own thinking. It is quite conceivable that principles of association present in cosmic creation are similar to what we would term logical principles of methodology rather than "laws of association." Principles that to us seem *de jure*, principles that we must make an effort to employ, may be no more than *de facto* modes of procedure for the divine mind.) But even so the discovery of significant material could not be predicted. To predict creative activity *in toto* and so foresee the actual concrete embodiment would require that all the patterns involved be foreseen as well as the final mode of their compresence in production. But as Bergson has argued, to foresee so completely would be to perform the act of creation itself. It would not be foresight but actual production. Now, if we wish to argue that God so foresees the world process, well and good. That act of complete foresight is identical with His act of creation. And we are back where we started with a creation that cannot be foreseen in advance of its productive activity. This creation is the life of duration.

Many thinkers, even some Bergsonians, hold that such creations may occur, so to speak, all at once. Reality is then an eternity of production. This would require that God know the whole process of duration in an eternal supertemporal pulse of thought. Even so this might not pulverize the independence and the initiative of creatures, for God's vision of their actuality would not be foresight. God himself would be unable to *predict* their future in full concretion. Inferential prediction would be limited as in all forms of the philosophy of creation. The insuperable difficulty which such a philosophy presents lies then not in any unreasonable narrowness of application to human interests, but in the intricacies of metaphysical construction. The problem arises how to relate the actual flux of coming to be and passing, of "not yet" and "no longer," which are the actual horizons of creative process to a *totum simul*, the compresence of all time. We shall have occasion later on to examine a philosophy which

attempts such a reconciliation of time and eternity and shall witness its failure. We refer to the philosophy of Josiah Royce.

We are now face to face with the most obstinate problem with which this treatise has to do. We have to examine Bergson's belief (a belief quite essential to the irrational position in which we can form no conception of duration) that to define a situation is to render it subject to the categories of determinism. This will lead us to consider the relation of conception and intuition in Bergson's thought.

In Time and Free Will Bergson has openly denied the possibility of defining freedom or creation,⁵ although he has written at length to defend its reality. His thesis takes this form: To define is to think in terms of spatial schemata, to appreciate or to experience fully requires recognition in terms of real time or duration. Once we reduce a situation to spatial terms we find that "all is given," because its future and its present differ only through rearrangement of parts, for which order formulae may be deduced.

If to conceive is to reduce to elements which thought treats as spatial and dense, that is, as the opposite of plastic, Bergson is right; to define is to reduce process to successive positions on a checkerboard, in which the jumps occur according to a pattern. But every time we form conceptions of this sort, Bergson asserts, something is ignored. This element overlooked is genuine concrete change, which is not a matter of jumping but of plastic growth. Now, this ignored something cannot be conceived, it can only be perceived directly, or better intuited.

Our objection should by this time be obvious. If Bergson so considers definition and conception, he necessarily commits himself to the irrational interpretation and must derive structure from the simple and structureless as best he can. That this *impasse* is unnecessary, Bergson's own brilliant account of esthetic activity should attest. The problem is to restate the theory of conception and intuition so as to avoid an unnecessary and impossible doctrine.

Bergson's predicament amounts to this: He will not allow conception to deal with anything but material elements. He believes that constitutive elements cannot be defined or conceived, until their growth is complete, whereupon they may be reduced to material elements. Now, if we consider material elements without reference to constitutive, we employ what Bergson calls conception. It is easily shown that on such grounds we cannot conceive of anything but patterns of dense units, in which

⁵ *Time and Free Will*, pp. 218 ff.

there is no meaning of any sort save that of position and distance. To this sort of meaning, expressions such as life or purpose are quite inapplicable.

For material elements are stable and inert. Our interest in them lies primarily in their relations rather than in anything that we may call proper to themselves. Constitutive elements require very different treatment if we are even to recognize them. In the *Introduction to Metaphysics* Bergson writes of an intellectual sympathy by which we penetrate beyond externals and intuit objects themselves.⁶ This we may call apprehension of constitutive elements. That such is Bergson's meaning may be seen from the fact that he continues by telling us that if we refrain from such sympathy, we shall have no philosophy but only symbolic knowledge. Symbolic knowledge is knowledge through material elements.

But Bergson considers these constitutive elements indefinable because they do not rest at home within the spatial schema. They are without stable properties and definite boundaries, being always in tendency and development. Hence in order to conceive them, intelligence must employ the motion picture device and consider them as made up of a number of positions, which are themselves not plastic or developing.

There is an important truth in all this. But Bergson should substitute the term *calculation* concerning the concrete world for *intelligence* or *conception*. Calculation requires the recognition of material elements, which calculation serves to relate one to another. Thanks to material elements, mathematical ratios appear "anchored" in the concrete world. Without such units calculation would be like an algebra without terms, or a geometry without figures. But shall we say that conception is limited in the same way? I think we shall see that this is not the case.

A moment's reflection will show that the concept deals always with things ultimately indefinable, drawn from experience. These indefinables are purified, to be sure, by an analysis that is loath to admit the presence of the indefinable, although it knows that in the end it must admit some indefinable terms. For the sake of calculation we accept distinctness as a primary character of material units. We need not define this character in terms of something simpler, although we may contrast it with its opposite. On the other hand when apprehending flux and plastic development we must admit another primary character with which our experience supplies us. This character is not the opposite of the distinctness of material elements. Such opposition would yield

⁶ *Introduction to Metaphysics*, p. 43.

us chaos or sheer confusion. Conscious flux, or creative flux, has a character of its own which is neither material distinctness nor the opposite. It is, in short, a *tertium quid*. To apprehend this character we must apprehend what we mean by direction or general trend of meaning. Such apprehension is like the notion of unity, something removed from exhaustive definition. It is an immediate form of enjoyment. The conditions of its apprehension may be described but no definition beyond that limit can be achieved.

Bergson has identified intelligence with thought operating under the presuppositions or principles of calculation. Hence he has found constitutive elements unintelligible. He has not described them as unadapted to calculation but as quite irrational, being without essence and yielding to no analysis. But this extreme distinction is unnecessary. If we accept different indefinables in either case, we may conceive of psychic or creative flux quite as clearly as we can conceive of the various operations in calculation. Both may be defined, once the proper presuppositions are made.

Bergson has made a point quite relevant to this. In Bergson's scheme intuition has the task of apprehending the unintelligible. Bergson has said that intuition must initiate and correct conception,⁷ supplying it with subject matter and holding it to that subject matter. Such a statement belongs to the esthetic point of view, for which distinction and articulation need not be foreign to intuitive apprehension. From the mystic point of view such a statement is really meaningless. Here intuition and calculation are so divorced that any interaction between the two seems impossible. We might grant that from an intuitive experience a Bergsonian might conclude that intelligence was deceptive. But, if the mystic interpretation of duration be true, he could not correct conception in any way. He would have nothing to add to it save that he had experienced something quite different which he preferred to believe was real. His philosophy would end there.

Once, however, we distinguish conception from calculation we are free to study creative process, to abstract common qualities from examples thereof and to construct a theory of creation, which Bergson has himself in his esthetic position actually accomplished.

If we are to feel any sympathy for the predicament into which Bergson fell when he refused to consider creation as intelligible, we must understand his belief that intelligence always seeks spatial pattern and is really only at ease when its objects may be spatially represented. If this

⁷ *Creative Evolution*, pp. 46-7.

were true, definition and conception would be quite inapplicable to the idea of creation. There is, however, a formidable array of criticism drawn up against this interpretation of intelligence, which, I think, justifies dismissal of the doctrine.

We are certainly quite at a loss to sketch a spatial pattern of esthetic generation which will include the novelty of the product and the creative nature of its development. Bergson has spoken of an interpenetration of parts present in duration. This union of elements, once in pre-creational isolation, can be only imperfectly apprehended if we limit ourselves to a spatial scheme. With such a phantasy the logical structure of creation is irreconcilable. Yet Bergson has described intellectual thought as inseparable from spatial pattern.

Intelligence derives its material through a relaxation or breakdown of the tension required to maintain thought on the intuitive level. Through this relaxation, the constitutive organization of an esthetic sequence is relinquished, and even the wealth of secondary qualities may be lost. In the end thought descends to a three-dimensional scheme qualified only by a linear and planar division of spatial elements. Once situations are represented in this fashion, comparison of one to another and reasoning from the structure of one to the structure of another becomes a quasi-geometrical performance. "In fact, when I say that the water on the fire will boil today as it did yesterday, and that this is an absolute necessity, I feel vaguely that my imagination is placing the stove of yesterday on that of today, kettle on kettle, water on water, duration on duration, and it seems then that the rest must coincide also."⁸ In this act of thought, there is much abstraction and ignoring of details that seem irrelevant for the reasoning in question.

The abstraction is of course not to be denied, but to interpret such reasoning as a matter of superposition of the situations involved is to challenge serious objection. There are two important grounds for dissent. First, is the superposition actually performed? Second, has such imaginative performance if actual, the philosophical significance that Bergson claims for it?

The first point cannot be satisfactorily determined one way or the other. It resolves itself at once into a psychological problem. But since we cannot be sure that all men imagine the objects of conception after the same fashion, the argument is weakened at the start. Furthermore, we have the statement of at least one mathematician to the effect that we need not always conceive of mathematical subject matter in spatial

⁸ *ibid.*, p. 215.

fashion. For Bertrand Russell has denied that conception of pluralities of separate units involves spatial imagination even as an accompaniment.⁹

Besides, to turn to the second objection, even granted that spatial imagery is a necessary accompaniment of conception, can we assert that the proper object of knowledge must necessarily resemble the imaginative form of the idea? If we must assert this then we must admit that conception is limited to spatial subject matter. But such an assertion, while perhaps not unthinkable, is sufficiently radical to require thorough treatment, and this Bergson has not given it. The idea appears as a tacit assumption in his thought.¹⁰

Discussion of this problem carries us to the classical problem of the abstract idea and to the mode of its residence in the mind. Here we find a discrepancy between imagination and conception. The latter always overflows the limits of the former. The delicate problem of relating the two was faced by David Hume. Mention of his view will afford us an excellent center of discussion. Hume describes the abstract idea as a habit of thought. This is in some respects fortunate as it emphasizes the active nature of the idea. Professor Hendel summarizes Hume's view as follows :

"There is in the mind a certain number of habits of thought, each of them representing whole sets of particular ideas that have unity with each other despite their obvious differences. These habits are 'acquired' in the course of experience. They depend upon the original impetus of the mind itself to assimilate everything to everything else and they depend, also, upon the actual repetition of the events in nature. The *usual* relations are those that really *determine* our thinking. They are the ones we denote in language. When such customs of the mind exist we need only hear a general term to think of some particular idea suited to the context of our thought or conversation. The term touches off a very active disposition of the mind itself and this disposition then exhibits a remarkable power of discrimination, calling up to definite representation whatever is most relevant to the occasion. The custom is

⁹ *The Philosophy of Bergson*, Cambridge, 1914, p. 15.

¹⁰ G. W. Peckham, *The Logic of Bergson's Philosophy*, New York, 1917, throughout (this point is a central thesis of the dissertation). Also A. Mitchell, *Studies in Bergson's Philosophy*, Lawrence, 1914 (*University of Kansas Bulletin*, Vol. 15, no. 4), p. 45 *circa*. Also A. O. Lovejoy, "The Problem of Time in Recent French Philosophy," *Philosophical Review*, Vol. 21, p. 331.

then something potential, fraught with activity, prompt to suggest ideas."¹¹

Thus the abstract idea is not bound to any particular set of images. It is not a picture. It is rather an active disposition that reaches into the past and selects and refashions itself to suit the direction of our thought. To be sure, it does not follow from this that human conception is bound to no *form* of imagery such as the spatial. But it does show that thought surpasses any given imagery that accompanies it. Conception is not to be described in terms of the imagination that may assist its activity. Thought employs imagery, it is not the slave thereof. Our image of what we conceive is only a makeshift. Accuracy is attained only through discounting the inaccuracies of the image.

This account of the abstract idea is essentially that given by Bergson in his discussion of interpretation outlined above. (p. 78.) This differs from the whole irrational strain in Bergson's thought. Here Bergson does not recognize a sharp distinction in thought between concept and intuition. All thought becomes on this view more homogeneous. Even the concept is founded upon interpretation and selection of material. It is originaive and free because it endeavors to overcome the limitations to which its life in the mind has been subjected. To deny this is to reduce conception to a moment of sheer imagination or "picturing" and to deny it any cognitive value. Thus we may conclude that even though all conception *may* be subject to a more or less spatialized accompaniment in imagination, we have the right to maintain that in conceiving we transcend this imaginative medium.

In order to discard Bergson's distinction between intuition and intellect we are bound, if we wish to retain the valuable portions of his work, to suggest a more successful distinction that will preserve the vital features of Bergson's thought. For our purposes in this matter, the classical terminology is perhaps the most illuminating. Let thought be described as discursive and intuitive. According to this scheme, mind either plays over a wide range of material, discovering similarities and distinctions, or it gathers the whole of the material with which it is at the time concerned into one relation or organization and for a moment rests in the enjoyment of its achievement. Discursive thought brings to light the recurrent types of relations present throughout all reality that is open to mind. It is analytic and comparison is its very life. Intuition, or esthetic thought, is less comparative, it moves toward the individual

¹¹ *Studies in the Philosophy of David Hume*, Princeton, 1925, p. 128.

and the unique. The difference between discursive and intuitive thought is one of degree, all thought being intuitive insofar as it approaches any situation and grasps its particular organization.

To be sure, intuitive thought may function in realms the most abstract from the concrete world with which our activity seems to be involved. Intuition's distinctive character lies in that it possesses a direction, viz. from the more general to the more individual. This "individual" does not here imply necessarily the actual world of the *Élan Vital's* creation. Intuitive thought may actually lead us away from the world which we call the concrete. The use of the word *individual* refers to the fact that in intuitive thought we organize our material into an interrelated structure which reveals itself to intuition in a single unified pattern. In the *Introduction to Metaphysics*, Bergson describes intuition as the apprehension of the unique, while analysis he describes as reducing its objects to elements common to other objects.

Intuition profits by the wealth of distinctions supplied by analysis and seeks to produce a union of abstract elements that will embody something beyond the meaning of the material already apprehended. It is true that the new psychic achievement may refer to many objects. Its objective correlate may be characteristic of many situations. Yet it will possess a structure of its own, whose texture requires that insight be especially devoted to its apprehension.

Concentration of meaning in medium of apprehension or production is the criterion of intuitive thought. Thought is completely concentrated in this fashion when every aspect of its material is indispensable to the meaning embodied in that material. Works of art approach such complete concentration when any alteration, however slight, tends to dispel the meaning or "point" present therein, to destroy the esthetic value of the object. A completely intuitive discovery would be one in which all the facts involved were in their complete detail necessary to the assertion of the truth in question.

Esthetic standards in inquiry extend beyond logical demonstration. Thus concentration of material may apply in mathematical demonstration to the degree of economy and elegance with which unnecessary material is avoided and the proof rendered as simple and direct as possible.

The esthetic excellence of a moment of expression depends upon this concentration. Recognition of an extraordinary degree of such concentration is esthetic approval. That such concentration is present in degrees is obvious when we consider the frequent criticism: "I can see

what the artist was driving at, but he hasn't altogether succeeded." The work is in such cases not sufficiently dominated by the expression which it embodies.

We do not say that creative or intuitive thought may not be presented in commonplace, discursive language. This, of course, frequently happens. But if this is the case the language employed is not the medium employed when the discovery was made. This is, I suspect, very true of much philosophical literature, even of the greatest. The medium employed in meditation is often only partially verbal, much depending upon the schematic visual imagery with which the philosopher encircles his thinking. If this could be successfully published, we should perhaps not find so many esthetic monstrosities among philosophical writings of reflective merit. But even these, after long acquaintance and pondering, the mind comes to love and rejoices in the subtle symmetries which lie beneath verbal expression.

Intuitive thought moves toward richer concentration. Discursive thought ignores this. A writer's thought takes an intuitive direction when he grasps a plan of composition and sees the relative positions therein of the various sub-topics which he desires to include in his essay. Now, suppose that after this plan has been apprehended, he comes upon an instance or a fact which he suspects is pertinent to his work. In what section shall he include it? To decide this does not require intuitive apprehension of the plan. Discursive thought is here sufficient. The author reasons, "This fact may be classified as an example of such and such. Section X is to deal with this topic." Therefore he enters the fact in his notes under section X. Such reasoning recedes from the intuitive level attained in formulation of the plan.

There is, of course, a sense in which discursive thought is often termed intuitive. This is the fourth type of intuition which we mentioned on page 57. It is the apprehension of relations without which discursive thought cannot distinguish differences or compare similarities. It is best to be observed in the chain of mathematical reasoning, grasp of each "link" in the reasoning requiring such intuition. We do not, however, employ the term *intuition* in this sense. Rather we should suggest for this the term *intellectual perception*.

Intuitive or discursive expression may attack any subject matter. The difference between the two lies in the form of expression not in the subject matter expressed. This alters Bergson's dictum concerning mathematics, which embodies for him the pattern of intellectual thinking. Now, it is true that in all mathematical thought we encounter

something apparently similar to the relation of significance and medium of expression, to be encountered in discursive thinking. In mathematics we find that meaning is in a sense everything. The manner of its attainment seems indifferent to the result. In geometry there are usually many ways of establishing a proof. Also in art there may be said to be many possibilities of procedure, but no two of them may lead to the same result. This leads Bergson to deny that mathematical objects endure. They are, he asserts, unaffected by their histories. It is as if the world in which they exist were always beginning again. This is true but it does not follow that mathematics is no field for intuition.

Scientists and mathematicians are by no means excluded from creative activity. Their work, on the contrary requires it. The development of their sciences depends in large measure upon the insight and ingenuity which they bring to their problems. It is in fact quite possible to perceive even mathematical relations drawn into esthetic union. This is the type of experience so celebrated by Spinoza in his doctrine of *scientia intuitiva*.

After this discussion it should be clear since reason and intuition are not equipped to handle different material, but differ rather in the way they handle it, that reason is quite capable of comprehending creative process. Creative process is intuitive activity. But to maintain that therefore reason cannot understand it, would require the utmost metaphysical sleight of hand. My idea of blue is not itself colored nor need my apprehension of creation be always a creative or intuitive act of thought.

As a matter of fact it is only through discursive thought that we may realize the wealth of contingency and production that creative process implies. Intuitive creation does not compare its own acts with other things when it creates them, nor does it assert the novelty of its product. It is only when we reflect and compare constitutive with material elements that we realize the plasticity proper to esthetic thought. For this reflection, analytic distinctions are essential, as in all inquiry, in order that a beginning may be made.

The reader will recall that Bergson has said, probably when not in his irrational mood, that intellect always lights the way for intuition, which although it possesses a wealth of achievement is itself without a sense of direction. This is true since provisional foresight requires a grasp of abstract possibilities which can be seen as possibly applicable to the concrete only after preliminary analysis of both the abstraction and the future scene to which it is to be applied.

This discussion has made possible a definition of creative process, considered from the esthetic, rather than from the mystical point of view.

Creative process is a movement toward coherent realization of an ideal. This movement consists in a drawing together of the patterns of procedure supplied by memory, and subjecting them to the dominant purpose of the act, the realization of the ideal. In so far as the fusion of the patterns embodies the ideal, creation is successful. The more successful the creation, the more concentrated the product, i.e. the more thoroughly the ideal is realized in the medium, and the more essential to the realization is every phase of the medium.

Intuition is thought increasing the concentration of its product. Reason is thought ignoring the full concentration of its subject matter in order to indicate certain similarities and relations between the subject matter and other objects.¹²

The philosophy of creation, as it has here been presented, commits us to a definite point of view in epistemology. We cannot identify object known with the psychic content of the knowing act, be it human or divine. For there must exist at least one type of object which is not identical with psychic content of the knower, namely the past which cannot be identical with the concrete present. There is, of course, a sense in which the past is in the present for the present would not be what it is if the past had been otherwise. But there is also a sense in which the past does not and cannot exist if the present is to be what it is, namely the successor of the past. Hence past event cannot be wholly identical with present idea. Further, the past is quite independent of present idea in the sense that nothing that the idea can do will alter what the past has been. The past is remote from present action. It seems necessary, then, to admit that known objects are or may be independent of the knowing mind.

Now, certainly a present object is, for all we can say, no more "in the mind" than a past one. Such being the case, we have no reason to maintain a subjectivist theory of the status of present objects. For the philosophy of creation there are no future concrete objects. Hence all concrete objects would seem to be independent of the mind which knows

¹² Compare LeRoy's *Pensée Intuitive*, p. 57: "Le progrès de la connaissance comporte un rythme oscillatoire, un double effort de propulsion réciproque, une alternance de concentration intuitive et de détente conceptuelle." And again: "l'intuition reste constamment mêlée au discours le plus analytique." LeRoy also introduces the *dominant idea* of Ravaisson, Boutroux and Séailles, which he happily calls *schéma dynamique*. The schema chooses, orders and in general *directs the creative growth*.

them. But knowing must be distinguished from creating, the final act of creating an object being identical with the object itself. Knowing is then not the most intimate relation that can pertain between mind and object.

Knowing may be said, in scholastic fashion, to embody some form of the object known—some universal present in the object. Universals may be realized in "ideal" medium, namely in the thinking of a student or of an observer. The form embodied in knowing mind may be identical with the form embodied in nature. Thus mind and nature may "correspond." Mental media of embodiment comprise language, the actual technique of the arts, and the several forms of non-linguistic media of discourse used, for example, in mathematics.

In much sensuous perception the form of the object is rather represented than directly embodied. This will be challenged only by those who like Alexander try to read colors, etc., into physical objects rather than into awareness of objects through a natural physical medium, i.e. one not produced by the knowing organism itself. In sensuous perception the link between mind and object is not present in the act of knowing as it must be in fully developed intellectual understanding. In a real sense, perception offers conclusions without premises.

Thus the philosophy of creation is definitely opposed to subjectivism. It accepts a realism of concrete objects, and a "participatory realism" of Platonic forms which enter both these objects and the mental activity of organisms capable of discourse.

CHAPTER IV

COSMOLOGY OF THE "ESTHETIC" THEORY

I

THE irrational strain in Bergsonian thought predominates sufficiently throughout *Creative Evolution* to prevent the philosopher from including in his doctrine anything very similar to fully conscious choice of possibilities made by the cosmic force impelling evolution. Order lies in the past and the future is not yet. To be sure, the past or memory propels itself into the future. But we have seen that the use of the word "purpose" is impossible in describing the mystical creation.

However, if the esthetic side of Bergson's thought be allowed to dominate his cosmology, a much more intelligible account of cosmic creation may be elaborated. This would be in essential accord with Professor Cunningham's criticism of Bergson's theory which we have already quoted. This critic denies that Bergson has made provision for any foresight or providence in his system. Hence, according to Cunningham, Bergson has in effect renounced teleology. Professor Cunningham has, however, seen only the mystical side of Bergson. Bergson, when he thinks of process from the esthetic point of view, would have no difficulty in explaining how provision for an unfinished, plastic future may be secured, since on his view contingency of creation is tempered by the ideal forms which hover over and enter creative process. Such a doctrine, although not obviously explicit in Bergson's writings may easily be deduced from an application of the doctrine of memory and the theory of intellectual effort to the theory of creative world-soul or *Elan Vital*. It is the logical conclusion of the esthetic theory, once we grant that the idea of creation may be applied to world-process and to evolution.

So conceived, God is not an impulse or force but a creative spirit, seeking to enrich his creation with as much perfection as possible. Like an artist, he outgrows his creations and with the very act of production beholds elements of imperfection, that the creative mind will seek to avoid in future creation. The contrast between the ideal of perfection and the actual achievement breeds unrest that inspires continual effort and further creation. This activity will become clear to us as we proceed.

Constitutive elements derive from the memory patterns of the creative world-soul. These elements or universals are of two types; or, perhaps better, they may be considered in two ways, for at least some of them may be studied from both points of view. We may consider them as structural and value universals. The first are those which are employed as means to an end, the embodiment of value which is itself expressed in hierarchy of value forms. Physical patterns, the great typical forms of nature's more pervasive articulations are to be considered as structural. So also many of the patterns of vital structure, provided that these are not in themselves valuable. These universals are not symbolic reflections or distortions of a world process to which our thought cannot penetrate. Structural universals are not even material elements, although in their embodiment they do supply the ground for calculation.

The study of living forms when carried on with teleological reference, i.e. with interest in the adaptation of organ and function to organic needs, may be said to reveal something of these structural universals in their formation. In physical science we have at present no such insight into the growth of structure. Physical science reveals the rhythms of nature but not the meaning embodied in them. Thus the physical sciences penetrate the real world but do not ask, even so, all the questions which may legitimately be put to nature.

The scheme of embodied cause and effect, the skeleton of conformation which holds the concrete world together, may be called matter. To do this, is to use the term not in its ancient sense of *hyle* but in its more recent meaning, as the underlying substance of concretion. We may now read a rich meaning into Bergson's saying that life (creative process) and matter are tangent to one another, rather than coincident.¹ The moment of concrete embodiment is the togetherness of mind and matter, of conformation and of realization of value. But, if left to itself, if that is conceivable, matter lies indifferent to value, the principles of its structure seeming to generate nothing but marvellous complexity. Thus life and mind touch upon matter, but do not accept its direction.

Bodies, atoms, electrons, etc., are material—at least material insofar as they lend themselves to physical science. Thus as objects of science they are not moments of creative process but patterns in the concrete interconnection of things. Process embodies its ends in such matter, but even at the moment of embodiment is only tangent to matter because it does not relinquish its immaterial principle of creation.

¹ *Creative Evolution*, p. 31.

Biological species, general types of human personality, etc., are probably value universals. These are very complex in structure. Their production is the work of creative intuition which builds them slowly by embodying the form of value—deiformity, or autonomous will—more and more thoroughly in the form already achieved.

Science is, in general, the creaturely mind's systematic effort to grasp universals, structural or value universals. Mind, then, attempts to reverse the process of natural creation, to move from the tissue of the concrete to the forms that have entered into its making, thus rendering the concrete itself really articulate. The physical sciences do this by discovering permanent relations pertaining between general types of material elements; thus mind captures the rhythm of nature, refinement toward greater precision remaining apparently always possible. Thus are *universalia post rem* embodied in mind. The term *post rem* is not really a very happy one, for it at least *suggests* that the universal in mind is not the real universal which went into the making of the concrete. This is not true, for insofar as science is successful the forms which it presents as the result of investigation are identical with those that go into the making of things. When the results of science are not so identical, they are literally *post rem*. But the contributions of science need not, for all we can say, be necessarily of such a nature.

Thus the student of living things may well urge that life is conditioned by a vast array of material and efficient causes. This the creative philosophy has no desire to deny. In fact, the creative philosophy realizes that according to its prime hypothesis this situation is to be expected, for creation does not proceed without a medium, nor does it violate the principle of sufficient reason. There is, in other words, no supernatural intervention which violates the historical continuity of nature. No "principle of life" intervenes and mysteriously alters the structure of living beings. Every event, vital or otherwise, must be in coherent conformation with the past. Thus the empirical investigator will face no impossibility in searching for the inanimate conditions and even the inanimate elements of life. But this does not preclude the truth that condition and element are the occasion and the medium through which creative mind has embodied an image of itself in the form of living beings. The best way to hamstring a materialist opponent is to accept his doctrine.

The interplay between the forms of value and of structure comprises the process of creation. We find therein two complementary functions, first the creation of value universals or the embodiment of value

in the abstract patterns of production, and, second, coupled to this, is the later embodiment of the many value structures as coexistent in the concrete world, which is the outcome of creative process. Thus there is in all creation a movement toward an ideal but this motion must be reconciled with the concrete texture of things in which the ideal must be embodied. Otherwise production would be no more than the incomplete creation of the daydream. The requirements made by concretion give rise to the counter-motion in which the ideals envisaged are embodied as well as may be in the closely interwoven texture of final achievement. This reverse motion is, of course, creative and contingent as is the forward drive toward ideals.

The difference between theory and practice may be described as the difference between the two movements of creation. Theory is the first motion which points a new direction, springing away from the concrete. Practice turns backward and actualizes as well as may be the advance made in theoretical insight. The necessary coherence of actualization may pulverize the most ingenious plans. A moment comes when action is imperative if the creator is to save what he has achieved. Thus at times the necessity encountered in concretion destroys embodied value for whose preservation no plan of procedure has been developed. This is the true *ananke* which Plato attributed to space.

In fact, if we accept a suggestion of Whitehead's, we may interpret the *receptacle* of Plato's *Timaeus* as the first principle of concrete embodiment, what we might call the plan of togetherness according to which created entities must conform with their contemporaries. Space is the prime mode of such contemporaneous conformation as causality is of conformation in succession.

We have seen that production is contingent and that unified structure and order exist as the result of creation. Every pulse of creation expands into novelty. This novel contribution to reality must be judged as it is received and the success of value's embodiment therein must be appraised. Apparent imperfection or root of imperfection discovered in the production of new patterns or of abstract fusions of patterns may be withheld and new structures substituted for the failures. But this is not true of the final plunge with which creation enters the concrete. This last unification of elements once made cannot be withdrawn from realization. It exists. Recognition of an embodied imperfection is recognition of evil. Evil is not willed in creation. It is best described as the continual failure, which the fact that no object of creation can be absolutely foreseen necessitates. The final creation of the concrete, like

all creation, cannot be foreseen in detail, and furthermore it cannot be discarded. The obvious result is the influx of imperfection, which is an unavoidable loss of value.

Bergson has in his latest work *Les deux Sources de la Morale et de la Religion* dealt briefly with the problem of evil and offered an explanation essentially in harmony with the one that we have suggested. Bergson speaks of an interrelation of things such that to eliminate a part we must eliminate all.² Thus we admit that good springs up with evil and that *in the concrete* we cannot at the moment of creation separate them.

That the influx of imperfection may ever be overcome seems doubtful. Perfection of embodied deformity is apparently impossible. Every moment of creation sets its own problems and every value achievement requires elaborate creative activity to preserve its presence in the concrete. Such activity is subject to all the limitations of creation and hence subject to unforeseen loss of value. Complete or absolute achievement seems out of the question. The City of God is a genuine utopia in that it can never be realized.

But let no one say that in this case all realization of value is futile. Realization of value it remains, although absolute perfection is unattainable. Indeed, it is not in progress for its own sake that value lies embodied. It is in the actual perfection attained by creatures. God must create more perfect forms of life. It is of his eternal nature so to do. But this is no reason why man must look for human worth and happiness only in progress. To do so amounts to the admission that man can attain no important worth in the present. Indeed, the joys of unimpeded activity, mental or physical, of the discovery of beauty and of personal worth are better guides to the achievement of value than is any formula that requires continual dissatisfaction as the genuinely moral attitude.

Progress is the most questionable of gods. The human race may not be for too long a time favored in creation. The enthusiasm of the evolutionary perfectionist may well be dampened by the reflection that higher forms of life when they appear may very well bear the same relation to man as man bears to the lower animals. More than one thinker has realized this and tempered his enthusiasm for "ever higher life." Santayana rebukes Bergson for such an attitude, inquiring whether the *Elan Vital* may not in time manifest "digestive intention"

² *Les Deux Sources*, etc., p. 280.

toward the human race.³ And C. D. Broad, reviewing Alexander's doctrine of emergent deity, or next higher level of creature, has suggested on the same grounds a sort of inverted communion and transubstantiation which may relate man to the deity to come."⁴

2

The esthetic theory of creation makes possible a spiritual pluralism. In this section we must outline the form which such pluralism may take. It is in this respect vastly preferable to the irrational view according to which personal identity if existant must remain unexplained or be attributed to the contaminating influence of matter.

Wealth of personality, which is autonomous apprehension and pursuit of value, is the arch-goal of creation. The possibility of the achievement of this end, even in the slightest degree, is made obscure by the difficulty of conceiving a creature in any sense as a creator. To do this we must undertake a further discussion of the relation of abstract pattern to the world of concrete achievement. This may clarify the status of the individual agent and reveal in what measure he is dominated by creative process not his own. More is required of a philosophy of human freedom than an esthetic or creative interpretation of becoming. Man is not man if he is *only* a creature. He must appear not as a character in a drama, but as a person: the product of his own history, which he has had some hand in fashioning.

If this is indeed the state of affairs, the creative contingency of the world-process will be multiplied by every conscious agent within it. How then can there be a general direction and unified order throughout the whole? The question is central, for without a great measure of such unity, all discussion of a creative world-soul and of esthetic purpose is futile. The solution is vital to an ethically reasonable interpretation of life. It is fortunately not impossible. With an outline of this solution we shall close our brief account of the esthetic cosmology.

"So careful of the type she seems,
So careless of the single life."

The lines were written of nature. For many readers there arises an implied *caveat* that here is an insufficient account of the situation, and that we must search further for a source of power that is careless of nothing, and for which not even the fall of a sparrow is negligible.

³ *Winds of Doctrine*, pp. 103-4.

⁴ *Mind*, N.S., Vol. XXX, pp. 148-9.

And this *caveat* we must make, would we dignify creaturely existence. And yet to do this, we must show that primal creation stands, so to speak, aloof from its creatures, although cherishing the worth embodied in them, in order to allow that worth to develop. Religion has been always without the metaphysical concepts to explain such a situation, although the ethical attitude common to the higher religions always presupposed some such order of things.

We have already asserted that the act of creation is identical with the object created. Hence it might seem that God cannot create a man, unless God's act is that man. If, in turn, the man create, then God creates again by a sort of secondary creation. Such a denial of man's ability to create and contribute is unreasonable and, furthermore, surpasses the scope of our present concepts. Such a view follows upon a misconception of the nature of the creature. The final act of creation, what we have called the plunge into the concrete, is the creature. This may be interpreted to mean that the creature creates itself. This is pretty much a matter of terminology. For we have long ago admitted that the creature cannot be foreseen in concrete individuality and we have admitted that its emergence is contingent. The final act of creation, the creature, *asserts itself* under the conditions set upon it by concrete environment and the direction which creative process is pursuing. We shall see later that Professor Whitehead has made this a cardinal doctrine of his philosophy of organism.

Man is an unusual creature. He is more than a final act of creation, flowering in the concrete. Man unlike lower creatures includes much theoretical activity prior to concrete embodiment, for man deliberates. His deliberation is actual, having a concrete foundation, but it penetrates possibility. (See below, pp. 140 ff.)

Man's deliberation is sustained largely by creation not his own. The opportunity for deliberation is given to man, being based upon his complex body, its functions and its education or its early moulding into habit. Such opportunity is the grace of God. Actual deliberation and decision constitute a man's self. Man is active thinking.

God's control and domination of man lies, insofar as it exists at all, in what is given to man. God presents man with problems.

This situation may be described by means of a concept that we shall call the "social" universal. This is a type of structural universal which has application to the behavior of conscious beings. The process of its concretion does not overwhelm the spontaneity of the conscious agent in whose activity it is embodied. Let us describe this universal as fol-

lows: In the process of cosmic creation there exists the knowledge that given certain concrete conditions, indefinite groups of agents, whose numbers can only be approximated, will meet these conditions in a certain fashion which will be in general similar for all members of the group. These universals are the results of insight into the deliberative situations into which conscious beings may be plunged. They are similar as regards object matter to the statistician's knowledge of certain regularities in group behavior. They are Bergsonian memory patterns applying not to the individual's choice directly but to group choice, groups being recognized as precreational entities. By the recall and creative fusion of these patterns, the histories of societies or of aggregates of fairly similar conscious agents may be planned in advance by the creator in the same tentative fashion as the history of any entity may be planned. But within this general plan no special plan is elaborated for any individual conscious agent. The agent may in fact quite surpass the possibilities considered in creation and invent a novel attitude, thus actually contributing to the patterns of action pertaining to the situation in general.

But this is creaturely creation of an unusual order. Most frequently the creature is limited to choice of several modes of procedure which are fairly well outlined by habit, custom and precedent. Here often the power of the spirit is thwarted by lack of its own activity, the mind having failed to play suggestively about the situation and to take advantage of its ramifications. So in general there will be a certain pattern of repetition of response, enduring from one social situation to another. And this will make possible a creative providence initiating the conditions. As more and more autonomy is embodied, this providence will grow less and less accurate. Creative providence thus tends to lessen its own sphere as it succeeds in its undertakings. God strives to set man free.

This Bergson has realized and celebrated in a famous passage.⁵ But not only are insight and creative development of future activity aspects of autonomous life. Stability of character and the Stoical ability to postpone decision when some immediate action seems perhaps speciously agreeable are undeniably important. These may also develop in a world of creative process. Physical disposition, habit, wit, learning and ideals of conduct, whether consciously developed by the individual or borne upon him by a happy tradition and environment, strengthen him to hold a considered course through the flux of concrete becoming. Thus certain

⁵ *Creative Evolution*, p. 264.

types of individuals, those possessing such dispositions, will on the whole endure the union of their lives with the actual flux of things more successfully than others and realize in themselves greater perfection and greater happiness. This fact is the foundation of ethical speculation, and its justification.

With this reservation we close our present sketch of the esthetic account of human freedom, i.e. of a reasonable interpretation of becoming in terms of which man may find an assertion of his own reality as an agent, intelligent and purposeful. Let us briefly summarize the tenets of the position we have taken. Through development of Bergson's esthetic interpretation of creative process we have found a certain creative cosmology not inconceivable. In this cosmology becoming is interpreted as creative invention. It is the explanation of history, the history of animate and inanimate. This production proceeds after the fashion of esthetic creation. It works with a vast and complex material, composed of abstract or unembodied patterns. These patterns are brought together in creation to form the texture of concrete productions. New patterns may also be originated in planning activity. This activity, both in the planning and the execution, has a contingent aspect, in terms of which the presence of evil may be interpreted as unforeseen or unforeseeable failure. Many creatures are creative agents. Their activity is not wholly dominated by cosmic creation. This is because cosmic creation of animal history proceeds through the employment of social universals by which no individual's activity is absolutely dominated, although the general social situation in which the agent finds himself may be the embodiment of a pattern deliberately employed in cosmic creation.

This sketch, we believe, satisfies at least *de jure* the requirements of a "reasonable" interpretation of life. The moral as well as the cognitive aspects of man's experience are preserved intact. Man's conscious life of practical desires and decisions and his theoretic life of understanding are interpreted as equally significant in revealing the nature of the real. They are both supported by the system outlined. The contingent element in creation supports as we have seen the reality of the moral life and of moral decision. The employment of patterns of elaborate structure in the creative process supplies the object of scientific investigation and thus establishes the significance of man's theoretic activities.





